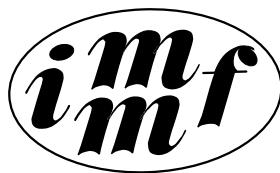


INŠTITUT ZA MATEMATIKO, FIZIKO IN MEHANIKO



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2016

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INŠITITUT ZA MATEMATIKO, FIZIKO IN MEHANIKO

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Legenda za bibliografije raziskovalcev v poročilu:

- A. objavljene znanstvene monografije,
- B. raziskovalni članki sprejeti v objavo v znanstvenih revijah in v zbornikih konferenc,
- C. raziskovalni članki objavljeni v znanstvenih revijah in v zbornikih konferenc,
- D. uredništvo v znanstvenih revijah in zbornikih znanstvenih konferenc,
- E. organizacija mednarodnih in domačih znanstvenih srečanj,
- F. vabljena predavanja na tujih institucijah in mednarodnih konferencah,
- G. aktivne udeležbe na mednarodnih in domačih konferencah,
- H. strokovni članki,
- I. drugi sumarni podatki (število zadetkov v COBISS-u, MATHREV, mentorstva diplomantom, magistrantom, doktorantom). Ti podatki se dodajo v poročilo samo na posebno zahtevo raziskovalca (samo število, brez imen in datumov).

UVOD

Kot vsako leto začenjam s poročilom o ureditvi statusa IMFM in s tem povezanim financiranjem osnovnih stroškov inštituta. Nič novega, nič spodbudnega. Le to, da smo se v preteklem letu ponovno obrnili na pristojno ministrstvo in ponovili utemeljen predlog, da se naš inštitut preoblikuje v javni raziskovalni zavod. Odgovor se strnjeno sliši takole: MIZŠ trenutno ne predvideva preoblikovanja IMFM v javni raziskovalni zavod, ker to predstavlja dodatno javnofinančno breme.

In zdaj k skopim podatkom o lanski dejavnosti inštituta.

Konec leta 2016 je bilo na Inštitutu za matematiko, fiziko in mehaniko zaposlenih 124 sodelavcev (115 doktorjev znanosti, en magister znanosti in 8 z univerzitetno izobrazbo), od tega 25 redno ter 99 dopolnilno zaposlenih.

Na inštitutu imamo osem programskih skupin – šest s področja matematike, ena s področja teoretičnega računalništva in ena s področja fizike. Vodje programskih skupin na Oddelku za matematiko so: prof. dr. Matej Brešar, prof. dr. Franc Forstnerič, prof. dr. Sandi Klavžar, prof. dr. Dragan Marušič, prof. dr. Primož Moravec in prof. dr. Dušan Repovš. Programska skupina na Oddelku za teoretično računalništvo vodi prof. dr. Tomaž Pisanski, na Oddelku za fiziko pa prof. dr. Zvonko Jagličić. Obdobje financiranja programske skupine na OF se je iztekel konec leta 2016, oddana pa je bila prijava za nadaljevanje financiranja v novem obdobju. Na Oddelku za fiziko deluje tudi infrastrukturna skupina, ki jo vodi dr. Vojko Jazbinšek.

V preteklem letu so se zaključili širje projekti, ki jih je sofinancirala ARRS, od tega trije temeljni in en aplikativni. Dva temeljna projekta in aplikativni organizacijsko sodijo na Oddelek za matematiko, en temeljni pa na Oddelek za teoretično računalništvo. Na Oddelku za matematiko so to: projekt z naslovom ‐Holomorfne preslikave, geometrijska interpolacija in harmonična analiza‐, vodja je bil prof. dr. Franc Forstnerič, projekt z naslovom ‐Splošna topologija in metode teorije množic‐, vodja je bil prof. dr. Dušan Repovš, ter aplikativni projekt z naslovom ‐Grafovski modeli in algoritmi pri parametrizirjanju baznih postaj mobilne telefonije četrte generacije‐, vodja je bil prof. dr. Bojan Mohar. Pri projektu ‐Omrežja sodelovanj v slovenski znanosti‐ je IMFM nastopal kot sodelujoča organizacija. Projekt je prijavila Fakulteta za družbene vede Univerze v Ljubljani,

vodila ga je prof. dr. Anuška Ferligoj, na IMFM je tekel v okviru Oddelka za teoretično računalništvo.

Lani je začelo teči pet temeljnih projektov, ki jih sofinancira ARRS, od tega štirje na Oddelku za matematiko in en na Oddelku za fiziko. Novi projekti na Oddelku za matematiko so: projekt z naslovom "Interakcija med kompleksno analizo, minimalnimi ploskvami in parcialnimi diferencialnimi enačbam", vodja projekta je prof. dr. Franc Forstnerič, projekt z naslovom "Izbrani problemi nelinearne analize", vodja je prof. dr. Dušan Repovš, ter projekt z naslovom "Kombinatorični problemi s poudarkom na igralih", vodja je prof. dr. Sandi Klavžar. Pri slednjem gre za skupni madžarsko-slovenski projekt, pri katerem Madžarska znanstvena raziskovalna fundacija (OTKA) deluje kot vodilna agencija. Na novem projektu, ki je pričel teči na Oddelku za fiziko, IMFM nastopa kot sodelujoča organizacija. Projekt z naslovom "Visokoentropijske kovinske spojine" poteka na Fakulteti za matematiko in fiziko Univerze v Ljubljani, vodja pa je prof. dr. Janez Dolinšek.

V skladu z Javnim pozivom za dodelitev mentorskih mest raziskovalnim programom v letu 2016 sta nova mentorja mladim raziskovalcem postala doc. dr. Marko Kandić (P1-0222) in prof. dr. Primož Potočnik (P1-0294).

S 1. 10. 2016 je na našem inštitutu pričel z usposabljanjem nov mladi raziskovalec Michael Kaplin (mentor doc. dr. Marko Kandić), s 1. 12. 2016 pa Micael Alexi Toledo Roy (mentor prof. dr. Primož Potočnik). Usposabljata se na področju "Matematika".

Konec leta 2016 se je na IMFM usposabljal osem mladih raziskovalcev – sedem na Oddelku za matematiko in eden na Oddelku za teoretično računalništvo. Njihovo usposabljanje v pretežni meri financira ARRS.

Preteklo leto so doktorirali štirje mladi raziskovalci, in sicer: dr. Luka Boc Thaler (marca), dr. Jernej Azarija (maja), dr. Urban Jezernik (maja) ter dr. Leon Lampret (septembra) – vsi na Fakulteti za matematiko in fiziko Univerze v Ljubljani.

Uspešni smo tudi na področju mednarodnega znanstvenega sodelovanja. V preteklem letu je bilo mednarodno sodelovanje razširjeno z 10 novimi dvostranskimi projekti, tako da jih je skupaj teklo kar 14. Geografsko je dvostransko sodelovanje IMFM povezano s skupinami raziskovalcev iz Avstrije, Črne Gore, Francije, Rusije, Srbije, Turčije in Združenih držav Amerike.

Tudi v letu 2016 so se pod vodstvom prof. dr. Primoža Moravca vrstili Matematični kolokviji, ki jih skupaj organizirajo DMFA, Oddelek za matematiko FMF UL in IMFM.

IMFM je tudi finančno podprt konferenco “Complex Analysis Workshop – Ljubljana”, ki je od 24.03.2016 do 26.03.2016 potekala na Fakulteti za matematiko in fiziko UL v Ljubljani.

Jernej Kozak,
direktor IMFM

ODDELEK ZA MATEMATIKO

PROJEKTI

V letu 2016 smo člani oddelka delovali v okviru programskih skupin

Matej Brešar, *Algebре in kolobarji*, (P1-0288),

Franc Forstnerič, *Analiza in geometrija*, (P1-0291),

Dragan Marušič, *Algebra, diskretna matematika, verjetnostni račun in teorija iger*, (P1-0285),

Sandi Klavžar, *Teorija grafov*, (P1-0297),

Primož Moravec, *Algebra v teoriji operatorjev in finančna matematika*, (P1-0222),

Dušan Repovš, *Topologija, geometrija in nelinearna analiza*, (P1-0292),

in nadaljevali z delom pri naslednjih projektih:

J1-5432, *Franc Forstnerič*, Holomorfne preslikave, geometrijska interpolacija in harmonična analiza (projekt zaključen v letu 2016),

J1-5435, *Dušan Repovš*, Splošna topologija in metode teorije množic (projekt zaključen v letu 2016),

J1-6721, *Lyubomyr Zdomskyy*, Limitne množice iteracijskih sistemov v dimenzijah 3 in 4,

L7-5459, *Bojan Mohar*, Grafovski modeli in algoritmi pri parametriziranju baznih postaj mobilne telefoniјe četrte generacije (projekt zaključen v letu 2016).

Začeli smo z novimi projekti:

J1-7110, *Sandi Klavžar*, Raziskovanje notranje strukture stolpnih grafov,

N1-0043, *Sandi Klavžar*, Kombinatorični problemi s poudarkom na igrah,

J1-7025, *Dušan Repovš*, Izbrani problemi nelinearne analize,

J1-7256, *Franc Forstnerič*, Interakcije med kompleksno analizo, minimalnimi plaskvami in parcialnimi diferencialnimi enačbami.

Sodelovali smo v naslednjih mednarodnih projektih:

- Sergio Cabello**, *Geometrijsko definirani slučajni grafi* (slovensko–avstrijski projekt),
- Barbara Drinovec Drnovšek**, *Moderni vidiki kompleksne analize* (slovensko–črnogorski projekt),
- Barbara Drinovec Drnovšek**, *Holomorfne in kvazikonformne preslikave* (slovensko–srbski projekt),
- Franc Forstnerič**, *Problemi v kompleksni geometriji* (slovensko–francoski projekt),
- Sandi Klavžar**, *Igra dominacije in pakirno kromatično število* (slovensko–ameriški projekt),
- Matjaž Konvalinka**, *Lastnosti in uporabe prepletogramov* (slovensko–ameriški projekt),
- Giovanni Molica Bisci**, *Asimptotična dimenzija* (slovensko–ameriški projekt),
- Petar Pavešić**, *Uporabna in računska algebraična topologija* (slovensko–srbski projekt),
- Bor Plestenjak**, *Učinkoviti algoritmi za večparametrične probleme lastnih vrednosti s tremi ali več parametri in njihova analiza* (slovensko–turški projekt),
- Dušan Repovš**, *Numerične invariente graduiranih identitet Liejevih superalgeber* (slovensko–ruski projekt),
- Dušan Repovš**, *Geometrijske in topološke lastnosti Busemannovih prostorov* (slovensko–ameriški projekt),
- Raffaella Sarvadei**, *Uporaba topoloških metod v teoriji kaosa in fraktalni geometriji* (slovensko–ameriški projekt).

ORGANIZACIJA MEDNARODNIH KONFERENC

Od 24. 3. 2016 do 26. 3. 2016 je na Fakulteti za matematiko in fiziko UL potekala mednarodna konferenca “Complex Analysis Workshop - Ljubljana”. Inštitut za matematiko, fiziko in mehaniko (IMFM) je konferenco finančno podprt.

MLADI RAZISKOVALCI

V okviru oddelka so se v letu 2016 usposabljali mladi raziskovalci

- Jernej Azarija**, mentor S. Klavžar,
Luka Boc Thaler, mentor F. Forstnerič,

Dejan Govc, mentor D. Repovš,
Barbara Ikica, mentor P. Šemrl,
Michael Kaplin, mentor M. Kandić,
Tim Kos, mentor B. Brešar,
Urban Jezernik, mentor P. Šemrl,
Leon Lampret, mentor D. Repovš,
Tilen Marc, mentor S. Klavžar,
Micael Alexi Toledo Roy, mentor P. Potočnik,
Riccardo Ugolini, mentor F. Forstnerič,
Aljaž Zalar, mentor M. Brešar,

z doktoratom pa so zaključili svoje usposabljanje:

Jernej Azarija, mentor S. Klavžar,
Luka Boc Thaler, mentor F. Forstnerič,
Urban Jezernik, mentor P. Šemrl,
Leon Lampret, mentor D. Repovš.

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Dominik Benkovič:

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- I1. 3 recenzije za MathSciNet.
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Janez Bernik:

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- G2. *Convexity of power functions and applications to functional calculus*, Harmonic Analysis, Complex Analysis, Spectral Theory and all that, Będlewo, Poljska, avgust 2016.

Barbara Drinovec Drnovšek:

- C1. —, F. Forstnerič, *Minimal hulls of compact sets in \mathbb{R}^3* , Trans. Amer. Math. Soc. **368** (2016), 7477–7506.
- C2. —, R. Sigurdsson, *A note on weighted homogeneous Siciak-Zaharyuta extremal functions*, Indag. Math. (N.S.) **27** (2016), 94–99.
- F1. *Minimal hulls and minimally convex domains*, vabljeno predavanje, Complex Analysis and Complex Geometry, Banff, Kanada, maj 2016.
- F2. *Complete proper holomorphic embeddings of strictly pseudoconvex domains into balls*, vabljeno predavanje, Frontiers in Elliptic Holomorphic Geometry, Jevnaker, Norveška, oktober 2016.
- F3. *Holomorphic discs in complex manifolds*, vabljeno plenarno predavanje, 7th Symposium “Mathematics and Applications”, Beograd, Srbija, november 2016.
- F4. *Constructions of holomorphic discs in complex manifolds*, kolokvijsko predavanje, Sveučilište Josipa Jurja Strossmayera u Osijeku, Hrvatska, januar 2016.

Roman Drnovšek:

- B1. *Triangularizability of trace-class operators with increasing spectrum*, sprejeto v objavo v J. Math. Anal. Appl.

- C1. —, M. Kandić, *Ideal-triangularizability and commutators of constant sign*, Oper. Matrices **10** (2016), 1–13.
- C2. —, A. Peperko, *Inequalities on the spectral radius and the operator norm of Hadamard products of positive operators on sequence spaces*, Banach J. Math. Anal. **10** (2016), 800–814.
- D1. Član uredniškega odbora revije *Advances in Operator Theory*.
- D2. Član uredniškega odbora revije *Journal of Mathematical Analysis*.
- I1. 2 recenziji za MathSciNet.
- I2. Mentorstvo pri enem magistrskem delu, pri 2 diplomskeih nalogah in 3 delih diplomskega seminarja.

Daniel Eremita:

- B1. *Commuting traces of upper triangular matrix rings*, sprejeto v objavo v Aequationes Math.
- C1. *Functional identities in upper triangular matrix rings*, Linear Algebra Appl. **493** (2016), 580–605.
- I1. 3 recenzije za MathSciNet.
- I2. Mentorstvo pri 3 diplomskeih delih in 2 diplomskeih seminarskih nalogah.

Gašper Fijavž:

- C1. —, A. Nakamoto, *Odd complete minors in even embeddings on surfaces*, Discrete Mathematics **339** (2016), 165–178.
- G1. *Minimal graphs containing k perfect matchings*, CSASC 2016, Barcelona, Španija, september 2016.
- I1. Mentorstvo pri 5 diplomskeih delilih.

Franc Forstnerič:

- C1. A. Alarcón, —, F. J. López, *Embedded minimal surfaces in \mathbb{R}^n* , Math. Z. **283** (2016), 1–24.
- C2. R. Andrist, —, T. Ritter, E. F. Wold, *Proper holomorphic embeddings into Stein manifolds with the density property*, J. Anal. Math. **130** (2016), 135–150.

- C3. L. Boc Thaler, —, *A long \mathbb{C}^2 without holomorphic functions*, Anal. PDE **9** (2016), 2031–2050.
- C4. B. Drinovec-Drnovšek, —, *Minimal hulls of compact sets in \mathbb{R}^3* , Trans. Amer. Math. Soc. **368** (2016), 7477–7506.
- C5. *Noncritical holomorphic functions on Stein spaces*, J. Eur. Math. Soc. (JEMS) **18** (2016), 2511–2543.
- C6. —, J. Smrekar, A. Sukhov, *On the Hodge conjecture for q -complete manifolds*, Geom. Topol. **20** (2016), 353–388.
- D1. Član uredniškega odbora revije *Proceedings of the American Mathematical Society*.
- D2. Član uredniškega odbora revije *International Journal of Mathematics*.
- E1. Član znanstvenega in organizacijskega odbora konference *Sanya School in Complex Analysis and Geometry, Tsinghua Sanya International Mathematics Forum*, Sanya, Kitajska, januar 2016.
- E2. Član znanstvenega odbora konference *KAWA 7, Winter School and Conference*, Toulouse, Albi, Francija, marec 2016.
- E3. Predsednik znanstvenega in organizacijskega odbora konference *Complex Analysis Workshop - Ljubljana 2016*, Ljubljana, marec 2016.
- E4. Član znanstvenega odbora konference *Symposium in Complex Analysis and Geometry*, Bedlewo (Poznań), Poljska, junij 2016.
- E5. Član znanstvenega in organizacijskega odbora konference *Frontiers in Elliptic Holomorphic Geometry*, Torbjørnrud Hotel, Jevnaker, Norveška, oktober 2016.
- F1. *The parametric h-principle for minimal surfaces in \mathbb{R}^n and null curves in \mathbb{C}^n* , vabljeno predavanje na mednarodni konferenci, Complex Analysis and Complex Geometry, Banff, Kanada, maj 2016.
- F2. *Every meromorphic function is the Gauss map of a conformal minimal surface*, vabljeno predavanje na mednarodni konferenci, INdAM Meeting Complex and Symplectic Geometry, Cortona, Italija, junij 2016.
- F3. *A long \mathbb{C}^2 without holomorphic functions*, vabljeno predavanje na mednarodni konferenci, CR Geometry and PDEs - VII, Levico Terme (Trento), Italija, julij 2016.
- F4. *New complex analytic methods in the study of non-orientable minimal surfaces in \mathbb{R}^n* , vabljeno predavanje na mednarodni konferenci, INdAM Workshop Complex function theory, Rim, Italija, september 2016.
- F5. *A long \mathbb{C}^2 without holomorphic functions*, vabljeno predavanje, University of Adelaide, Avstralija, januar 2016.
- F6. *The h-principle for minimal surfaces in \mathbb{R}^n and null curves in \mathbb{C}^n* ,

- vabljeno predavanje, Universidad de Granada, Španija, marec 2016.
- F7. *Every meromorphic function is the Gauss map of a conformal minimal surface*, vabljeno predavanje, Centre for Advanced Study (CAS), Oslo, Norveška, november 2016.

Maja Fošner:

- A1. S. Mlaker Kač, —, *Qualitative research of expected competencies in logistics*, poglavje v *Management and logistics : selected topics*, str. 77–83, Management and logistics, SPH - Scientific Publishing Hub, Czechochowa, Poljska. 2016
- B1. —, B. Marcen, J. Vukman, *On functional equation related to a class of generalized inner derivations in prime rings*, sprejeto v objavo v Bull. Malays. Math. Sci. Soc.
- C1. —, N. Širovnik, J. Vukman, *A result related to Herstein theorem*, Bull. Malays. Math. Sci. Soc. **39** (2016), 885–899.
- C2. —, B. Marcen, N. U. Rehman, *On skew-commuting mappings in semiprime rings*, Math. Slovaca **66** (2016), 811–814.

David Gajser:

- C1. *On convergence of binomial means, and an application to finite Markov chains*, Ars Math. Contemp. **10** (2016), 393–410.
- C2. *Verifying time complexity of Turing machines*, Informatica (Ljubl.) **40** (2016), 369–370.

Josip Globevnik:

- B1. A. Alarcon, —, F. Lopez, *A construction of complete complex hypersurfaces in the ball with control on the topology*, sprejeto v objavo v J. Reine Angew. Math.
- C1. *Embedding complete holomorphic discs through discrete sets*, J. Math. Anal. Appl. **444** (2016), 827–838.
- C2. *Holomorphic functions unbounded on curves of finite length*, Math. Ann. **364** (2016), 1343–1359.

- F1. *A complete complex hypersurface in the ball of \mathbb{C}^n* , vabljeno predavanje, Symposium on complex analysis and geometry, TSIMF, Sanya, Hainan, Kitajska, januar 2016.

Tanja Gologranc:

- C1. B. Brešar, C. Bujtás, — , s. Klavžar, G. Košmrlj, B. Patkós, Z. Tuza, M. Vizer, *Dominating sequences in grid-like and toroidal graphs*, Electron. J. Combin. **23** (2016), P4.34, 19 str.
- C2. B. Brešar, — , T. Kos, *Dominating sequences under atomic changes with applications in Sierpiński and interval graphs*, Appl. Anal. Discrete Math. **10** (2016), 518–531.
- G1. *Toll convexity*, 25th Workshop '3in1', Dosłońce, Poljska, november 2016.
- H1. *Uporaba Hallovega izreka*, Obzornik Mat. Fiz. **63** (2016), 132–138.
- I1. 6 recenzij za MathSciNet.

Dejan Govc:

- C1. *On the definition of the homological critical value*, J. Homotopy Relat. Struct. **11** (2016), 143–151.
- G1. *An approximate nerve theorem*, XIX Geometrical Seminar, Zlatibor, Srbija, avgust/september 2016.

Andreas M. Hinz:

- C1. — , C. Petr, *Computational solution of an Old Tower of Hanoi problem*, Electron. Notes Discrete Math. **53** (2016), 445–458.
- D1. gostujoči urednik revije *Electron. Notes Discrete Math. Vol. 53* (2016).
- G1. *Where mathematics meets psychology*, 8th International Conference on Information Technologies and Information Society (ITIS2016), Šmarješke toplice, november 2016.

Marko Jakovac:

- C1. I. G. Yero, — , D. Kuziak, *The security number of strong grid-like graphs*, Theoret. Comput. Sci. **653** (2016), 1–14.

- G1. *Secure sets in strong grid-like graphs*, Workshop Cycles and colourings 2016, Nový Smokovec, Slovaška, september 2016.
- I1. Mentor pri 2 znanstvenih magisterijih (stari programi).
 I2. Mentor pri 4 diplomah (stari programi).
 I3. Mentor pri 2 magisterijih (bolonjski programi).
 I4. Mentor pri eni diplomi (bolonjski programi).
 I5. 4 recenzije za MathSciNet.
 I6. Član komisije za pripravo in oceno nalog na mednarodnem matematičnem tekmovanju “26th Annual Vojtěch Jarník International Mathematical Competition”: Faculty of Science, University of Ostrava, 8th April 2016.

Urban Jezernik:

- A1. *Universal commutator relations*, doktorska disertacija, Univerza v Ljubljani, Fakulteta za matematiko in fiziko, Oddelek za matematiko, Ljubljana, 2016.
- B1. C. Delizia, —, P. Moravec, C. Nicotera, *Groups in which every non-abelian subgroup is self-normalized*, sprejeto v objavo v Monatsh. Math.
 B2. J. Garcia-Rodriguez, A. Jaikin-Zapirain, —, *Units of group rings, the Bogomolov multiplier, and the fake degree conjecture*, sprejeto v objavo v Math. Proc. Cambridge Philos. Soc.
 B3. —, P. Moravec, *Commutativity preserving extensions of groups*, sprejeto v objavo v Proc. Roy. Soc. Edinburgh Sect. A.
 B4. C. Delizia, —, P. Moravec, C. Nicotera, C. Parker, *Locally finite groups in which every non-cyclic subgroup is self-centralizing*, sprejeto v objavo v J. Pure Appl. Algebra.

Aleksandar Jurišić:

- B1. —, J. Vidali, *Restrictions on classical distance-regular graphs*, sprejeto v objavo v J. Algebraic Combin.
 D1. Član uredniškega odbora revije *Ars Mathematica Contemporanea*.
 F1. *Restrictions on classical distance-regular graphs*, vabljeno predavanje, Workshop on Algebraic Graph Theory, Pilsen, Češka, oktober 2016.
 G1. *Flowers at pentagon and Moore graphs*, Leoben-Ljubljana Graph Theory Seminar, Judenburg, Avstrija, september 2016.

- I1. Mentorstvo pri dveh magistrskih in enim diplomskem delu.

Marko Kandić:

- B1. —, K. Šivic, *On the positive commutator in the radical*, sprejeto v objavo v *Positivity*.
- B2. —, K. Šivic, *On the dimension of the algebra generated by two positive semi-commuting matrices*, sprejeto v objavo v *Linear Algebra Appl.*
- C1. R. Drnovšek, —, *Ideal-triangularizability and commutators of constant sign*, *Oper. Matrices* **10** (2016), 1–13.
- C2. *On algebras of polynomially compact operators*, *Linear Multilinear Algebra* **64** (2016), 1185–1196.
- C3. *Sets of matrices with singleton spectra generated by positive matrices*, *Linear Algebra Appl.* **496** (2016), 463–474.
- C4. —, A. Peperko, *On the submultiplicativity and subadditivity of the spectral and essential spectral radius*, *Banach J. Math. Anal.* **10** (2016), 133–146.
- G1. *Positive commutators of positive operators on Banach lattices*, Workshop on Banach Spaces and Operators, Edmonton, Kanada, marec 2016.
- G2. *Positive commutators of positive operators on Banach lattices*, Alberta Mathematics Dialogue 2016, Calgary, Kanada, april 2016.

- I1. Mentorstvo pri enim diplomskem delu.

Sandi Klavžar:

- C1. Y. Alizadeh, —, *Complexity of topological indices : the case of connective eccentric index*, *MATCH Commun. Math. Comput. Chem.* **76** (2016), 659–667.
- C2. A. R. Ashrafi, J. Azarija, A. Babai, K. Fathalikhani, —, *The (non-)existence of perfect codes in Fibonacci cubes*, *Inform. Process. Lett.* **116** (2016), 387–390.
- C3. A. R. Ashrafi, J. Azarija, K. Fathalikhani, —, M. Petkovšek, *Vertex and edge orbits of Fibonacci and Lucas cubes*, *Ann. Comb.* **20** (2016), 209–229.
- C4. J. Azarija, —, J. Lee, J. Pantone, Y. Rho, *On isomorphism classes of generalized Fibonacci cubes*, *European J. Combin.* **51** (2016), 372–379.

- C5. B. Brešar, C. Bujtás, T. Gologranc, —, G. Košmrlj, B. Patkós, Z. Tuza, M. Vizer, *Dominating sequences in grid-like and toroidal graphs*, Electron. J. Combin. **23** (2016), 1–19.
- C6. B. Brešar, P. Dorbec, —, G. Košmrlj, G. Renault, *Complexity of the game domination problem*, Theoret. Comput. Sci. **648** (2016), 1–7.
- C7. B. Brešar, —, D. F. Rall, *Packing chromatic number of base-3 Sierpiński graphs*, Graphs Combin. **32** (2016), 1313–1327.
- C8. C. Bujtás, —, *Improved upper bounds on the domination number of graphs with minimum degree at least five*, Graphs Combin. **32** (2016), 511–519.
- C9. M. Ghorbani, —, *Modified Wiener index via canonical metric representation, and some fullerene patches*, Ars Math. Contemp. **11** (2016), 247–254.
- C10. R. H. Hammack, W. Imrich, —, *Edge-transitive products*, J. Algebraic Combin. **43** (2016), 837–850.
- C11. W. Imrich, A. Iranmanesh, —, A. Soltani, *Edge-transitive lexicographic and cartesian products*, Discuss. Math. Graph Theory **36** (2016), 857–865.
- C12. —, G. Košmrlj, S. Schmidt, *On graphs with small game domination number*, Appl. Anal. Discrete Math. **10** (2016), 30–45.
- C13. Z. Shao, I. Averbakh, —, *Labeling dot-Cartesian and dot-lexicographic product graphs with a condition at distance two*, Comput. J. **59** (2016), 151–158.
- D1. Urednik revije *Discrete Applied Mathematics*.
- D2. Področni urednik revije *Discussiones Mathematicae Graph Theory*.
- D3. Urednik revije *Ars Mathematica Contemporanea*.
- D4. Član uredniškega odbora revije *Asian-European Journal of Mathematics*.
- D5. Član uredniškega odbora revije *Bulletin of the Malaysian Mathematical Sciences Society*.
- D6. Član uredniškega odbora revije *European Journal of Combinatorics*.
- D7. Član uredniškega odbora revije *Graphs and Combinatorics*.
- D8. Član uredniškega odbora revije *Iranian Journal of Mathematical Chemistry*.
- D9. Član uredniškega odbora revije *Iranian Journal of Mathematical Sciences and Informatics*.
- D10. Član uredniškega odbora revije *Kragujevac Journal of Mathematics*.
- D11. Član uredniškega odbora revije *MATCH Communications in Mathematical and in Computer Chemistry*.

- E1. Član programskega sveta konference *Conference on Algorithms and Discrete Applied Mathematics (CALDAM 2016)*, University of Kerala, Trivandrum, India, februar 2016.
- F1. *Graph distances via isometric embeddings*, vabljeno plenarno predavanje, Distance in Graph 2016, A conference to celebrate the life and work of Mirka Miller, Ubud, Indonezija, julij 2016.
- F2. *Extending Wiener index to arbitrary partitions*, vabljeno plenarno predavanje, The 12th Annual Meeting of the international Academy of Mathematical Chemistry (IAMC) and the 2016 International Conference on Mathematical Chemistry (ICMC 2016), Tianjin, Kitajska, julij 2016.
- F3. *Weak edge geodetic problem*, vabljeno plenarno predavanje, 7th International Workshop on Optimal Network Topologies, Tsinghua Sanya International Mathematics Forum, Kitajska, julij 2016.
- F4. *Packing chromatic number and its subcubic problem*, vabljeno plenarno predavanje, 2016 International Conference on Graph Theory, Combinatorics and Applications, Jinhua, Kitajska, oktober 2016.
- F5. *Domination game*, predavanje na univerzi, Nanjing University, Nanjing, Kitajska, julij 2016.
- F6. *Extending Wiener index to arbitrary partitions*, predavanje na Festkolloquium anlässlich des 75. Geburtstages von emer. o. Univ. Prof. Dr. Wilfried Imrich, Technische Universität Graz, Gradec, Avstrija, junij 2016.
- G1. *The packing chromatic number of subcubic graphs*, 19th Workshop on Hereditary Graph Properties, Balatonalmádi, Madžarska, september 2016.

Igor Klep:

- A1. S. Burgdorf, —, J. Povh, *Optimization of polynomials in non-commuting variables*, Springer, Cham, Švica, 2016.
- B1. J. W. Helton, —, S. McCullough, M. Schweighofer, *Dilations, Linear Matrix Inequalities, the Matrix Cube Problem and Beta Distributions*, sprejeto v objavo v Mem. Amer. Math. Soc.
- B2. *The real spectrum of a noncommutative ring and the Artin-Lang homomorphism theorem*, sprejeto v objavo v Algebr. Represent. Theory.
- B3. —, J. Volčič, *Free loci of matrix pencils and domains of noncommutative rational functions*, sprejeto v objavo v Comment. Math. Helvet.

- B4. E. Evert, J. W. Helton, —, S. McCullough, *Circular Free Spectrahedra*, sprejeto v objavo v J. Math. Anal. Appl.
- B5. —, J. Pascoe, J. J. Volčič, *Regular and positive noncommutative rational functions*, sprejeto v objavo v J. Lond. Math. Soc. (2).
- C1. J. W. Helton, —, S. McCullough, *Matrix convex hulls of free semialgebraic sets*, Trans. Amer. Math. Soc. **386** (2016), 3105–3139.
- C2. —, Š. Špenko, *Sweeping words and the length of a generic vector subspace of $M_n(\mathbb{F})$* , J. Combin. Theory Ser. A **143** (2016), 56–65.
- C3. K. J. Dykema, —, *Instances of the Kaplansky-Lvov multilinear conjecture for polynomials of degree three*, Linear Algebra Appl. **508** (2016), 272–288.
- C4. —, S. McCullough, C. Nelson, *On trace-convex noncommutative polynomials*, Michigan Math. J. **65** (2016), 131–146.
- C5. —, J. Povh, *Constrained trace-optimization of polynomials in freely noncommuting variables*, J. Global Optim. **64** (2016), 325–348.
- D1. Član uredniškega odbora revije *Complex Analysis and Operator Theory*.
- E1. Sekcija “Non-commutative inequalities” konference *International Workshop on Operator Theory and its Applications (IWOTA 2016)*, St. Louis, ZDA, julij 2016.
- E2. Sekcija “Problems with Matrix and Operator Variables” konference *International Symposium on Mathematical Theory of Networks and Systems (MTNS 2016)*, Minneapolis, ZDA, julij 2016.
- F1. *Linear matrix inequalities and interpolation problems for CP maps*, semi-plenarno predavanje, 22nd International Symposium on Mathematical Theory of Networks and Systems (MTNS), Minneapolis, ZDA, julij 2016.
- F2. *Changing Variables to Produce an LMI*, vabljeno predavanje, 22nd International Symposium on Mathematical Theory of Networks and Systems (MTNS), Minneapolis, ZDA, julij 2016.
- F3. *The tracial Hahn-Banach theorem and matrix convex sets*, vabljeno predavanje, International Workshop on Operator Theory and Applications (IWOTA), St. Louis, ZDA, julij 2016.
- F4. *Domains of noncommutative rational functions and their matrix pencil realizations*, Linear Analysis Seminar, Texas A&M University, College Station, ZDA, avgust 2016.
- H1. *Matrično konveksne množice*, Obzornik Mat. Fiz. **63** (2016), 81–99.

H2. *Striženje neenakosti*, Presek **43** (2016), št. 4, 4–7.

I1. Ena recenzija za Zentralblatt MATH.

I2. 2 recenziji za MathSciNet.

Damjana Kokol Bukovšek:

- B1. —, B. Mojškerc, *Jordan triple product homomorphisms on Hermitian matrices of dimension two*, sprejeto v objavo v Publ. Math. Debrecen.
- C1. D. Dolžan, —, B. Kuzma, P. Oblak, *On diameter of the commuting graph of a full matrix algebra over a finite field*, Finite Fields Appl. **37** (2016), 36–45.
- C2. —, B. Mojškerc, *Jordan triple product homomorphisms on Hermitian matrices to and from dimension one*, Linear Multilinear Algebra **64** (2016), 1669–1678.
- G1. *Seeking for a joint pmf given the sum of the marginal distributions*, 25th International Workshop on Matrices and Statistics, Madeira, Portugalska, junij 2016.

Tim Kos:

- C1. B. Brešar, T. Gologranc, —, *Dominating sequences under atomic changes with applications in Sierpiński and interval graphs*, Appl. Anal. Discrete Math. **10** (2016), 518–531.
- G1. *Distance in graph*, Asian Mathematical Conference, Ubud, Indonezija, julij 2016.

Gašper Košmrlj:

- C1. B. Brešar, C. Bujtás, T. Gologranc, s. Klavžar, —, B. Patkós, Z. Tuza, M. Vizer, *Dominating sequences in grid-like and toroidal graphs*, Electron. J. Combin. **23** (2016), 1–19.
- C2. B. Brešar, P. Dorbec, S. Klavžar, —, G. Renault, *Complexity of the game domination problem*, Theoret. Comput. Sci. **648** (2016), 1–7.
- C3. S. Klavžar, —, S. Schmidt, *On graphs with small game domination number*, Appl. Anal. Discrete Math. **10** (2016), 30–45.

Jernej Kozak:

- C1. —, M. Krajnc, V. Vitrih, *G¹ interpolation by rational cubic PH curves in \mathbb{R}^3* , Comput. Aided Geom. Design **42** (2016), 127–138.
- C2. —, M. Krajnc, V. Vitrih, *A quaternion approach to polynomial PN surfaces*, Comput. Aided Geom. Design **47** (2016), 172–188.
- G1. *Parametric polynomial circle approximation*, 9th International Conference on Mathematical Methods for Curves and Surfaces, Tønsberg, Norveška, junij 2016.

Marjetka Krajnc:

- C1. J. Grošelj, —, *C¹ cubic splines on Powell-Sabin triangulations*, Appl. Math. Comput. **272** (2016), 114–126.
- C2. K. Ferjančič, —, V. Vitrih, *Construction of G³ rational motion of degree eight*, Appl. Math. Comput. **272** (2016), 127–138.
- C3. J. Kozak, —, V. Vitrih, *G¹ interpolation by rational cubic PH curves in \mathbb{R}^3* , Comput. Aided Geom. Design **42** (2016), 127–138.
- C4. J. Kozak, —, V. Vitrih, *A quaternion approach to polynomial PN surfaces*, Comput. Aided Geom. Design **47** (2016), 172–188.
- C5. J. Grošelj, —, *Quartic splines on Powell-Sabin triangulations*, Comput. Aided Geom. Design **49** (2016), 1–16.
- I1. Mentorstvo pri enem doktoratu, enim magisteriju, eni diplomi in enim diplomskem seminarju.
- I2. Somentorstvo pri enem doktoratu.

Marjeta Kramar Fijavž:

- B1. B. Andreianov, —, A. Peperko, E. Sikolya, *Erratum to: Semigroups of max-plus linear operators*, sprejeto v objavo v Semigroup Forum.
- C1. I. Strnad, —, M. Žura, *Numerical optimal control method for shock-waves reduction at stationary bottlenecks*, J. Adv. Transp. **50** (2016), 841–856.
- F1. *The semigroup approach to flows in networks*, vabljeno predavanje, Università degli Studi di Padova, Italija, april 2016.
- H1. *Srečanje evropskih matematičark v Berlinu*, Obzornik Mat. Fiz. **63** (2016), 114–115.

- I1. 2 recenziji za Zentralblatt MATH.
- I2. Mentorstvo pri enem magistrskem delu (bolonjski študij).

Tadeja Kraner Šumenjak:

- C1. —, I. Peterin, D. F. Rall, A. Tepeh, *Partitioning the vertex set of G to make $G \square H$ an efficient open domination graph*, Discrete Math. Theor. Comput. Sci. **18** (2016), 1365–8050.
- G1. *Toll convexity*, 25th Workshop '3in1', Dosłońce, Poljska, november 2016.
- I1. Ena recenzija članka za revijo Asian-Eur. J. Math.
- I2. Ena recenzija članka za revijo Discuss. Math. Graph Theory.
- I3. Somentorstva pri 2 magistrskih in 2 diplomskih delih.

Ganna Kudryavtseva:

- B1. *Free skew Boolean intersection algebras and set partitions*, sprejeto v objavo v Order.
- B2. —, P. Škraba, *The classifying space of an inverse semigroup*, sprejeto v objavo v Semigroup Forum.
- C1. —, M. V. Lawson, *Boolean sets, skew Boolean algebras and a non-commutative Stone duality*, Algebra Universalis **75** (2016), 1–19.
- C2. —, M. V. Lawson, D. H. Lenz, P. Resende, *Invariant means on Boolean inverse monoids*, Semigroup Forum **92** (2016), 77–101.
- C3. —, J. Leech, *Free skew Boolean algebras*, Internat. J. Algebra Comput. **26** (2016), 1323–1348.
- F1. *Skew Boolean algebras*, vabljeno predavanje, Workshop on new directions in inverse semigroups, Ottawa, Kanada, junij 2016.
- F2. *Stone-type dualities for restriction semigroups*, vabljeno predavanje, International Conference on Semigroups and Automata, Lizbona, Portugalska, junij 2016.
- G1. *Free skew Boolean algebras*, 91st Workshop on General Algebra (91. Arbeitstagung Allgemeine Algebra), Brno, Češka, februar 2016.
- I1. Mentorstvo pri enem magistrskem delu.
- I2. 2 recenziji za MathSciNet.

Bojan Kuzma:

- B1. G. Dolinar, — , J. Marovt, *Lie product preserving maps on $M_n(\mathbb{F})$* , sprejeto v objavo v Filomat.
- C1. M. Giudici, — , *Realizability problem for commuting graphs*, J. Aust. Math. Soc. **101** (2016), 335–355.
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- G1. *Preserver problems and Graph theory*, 20th ILAS Conference, Leuven, Belgija, julij 2016.
- I1. 5 recenzij za MathSciNet.

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- F1. *Developing mathematical skills of students by using electronic worksheets*, vabljeno predavanje, WIMS outil de pédagogies innovantes, Annecy, Francija, junij 2016.
- G1. *Symmetric tetravalent graphs as covers of doubled cycles*, Workshop on Geometric and algebraic combinatorics, Pécs, Madžarska, maj 2016.

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- F1. *Graph covers - thirty years later*, vabljeno predavanje, Leoben-Ljubljana Graph Theory Seminar, Judenburg, Avstrija, september 2016.
- G1. *On the structure of lifted groups - Some algorithmic aspects*, Combinatorics 2016, Maratea, Italija, maj/junij 2016.

Tilen Marc:

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- I2. Pisec recenzij v revijah Naše gospodarstvo, Linear and Multilinear Algebra, Discussiones Mathematicae.
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- E1. Član organizacijskega odbora konference *New Trends in Graph Colouring*, Banff, Kanada, oktober 2016.
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- F1. *Graphs and Surfaces: Algorithms, Combinatorics and Topology*, serija 4 predavanj, 43rd French Spring School in Theoretical Computer Science, Marseille, Francija, maj 2016.
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- F1. *On the Bonsall cone spectral radius and the approximate point spectrum*, seminarsko predavanje, Technische Universität Graz, Gradec, Avstrija, april 2016.

- G1. *On the Bonsall cone spectral radius and the approximate point spectrum*, 20th ILAS Conference, Tropical algebra mynisimposium, Leuven, Belgija, julij 2016.
- G2. *Inequalities on the spectral radius, operator norm and numerical radius of Hadamard weighted geometric mean of positive kernel operators*, 17th Workshop: Noncommutative Probability Lévy processes and operator algebras, with applications, Będlewo, Poljska, julij 2016.
- H1. —, J. Šter, *Pitagorov izrek*, Presek **43** (2016), št. 6, 4–6.
- H2. B. Gabrovšek, —, *Hitro množenje velikih števil*, Presek **44** (2016), št. 1, 14–15.
- I1. Soavtor 2 univerzitetnih učbenikov.
- I2. Zaključno poročilo o rezultatih JESH projekta (Österreichische Akademie der Wissenschaften).
- I3. Somentorstvo pri diplomske nalogi univerzitetnega študija.
- I4. 5 recenzij za MathSciNet.

Tatjana Petek:

- B1. —, G. Radić, *Linear preservers of equivalence relations on infinite dimensional spaces*, sprejeto v objavo v Studia Math.
- G1. *Linear preservers of equivalence relations on infinite dimensional spaces*, 20th ILAS Conference , Leuven, Belgija, julij 2016.
- I1. 4 recenzije za MathSciNet.
- I2. Mentorstvo pri dveh diplomskih delih.

Iztok Peterin:

- B1. S. Klavžar, —, I. G. Yero, *Graphs that are simultaneously efficient open domination and efficient closed domination graphs*, sprejeto v objavo v Discrete Appl. Math.
- B2. D. Kuziak, —, I. G. Yero, *Resolvability and Strong Resolvability in the Direct Product of Graphs*, sprejeto v objavo v Results Math.
- B3. D. Kuziak, —, I. G. Yero, *Bounding the open k-monopoly number of strong product graphs*, sprejeto v objavo v Discuss. Math. Graph Theory.

- B4. —, J. Schreyer, E. Škrabul'áková, A. Taranenko, *A note on the Thue chromatic number of lexicographic products of graphs*, sprejeto v objavo v Discuss. Math. Graph Theory.
- C1. T. Kraner Šumenjak, —, D. F. Rall, A. Tepeh, *Partitioning the vertex set of $G \square H$ an efficient open domination graph*, Discrete Math. Theor. Comput. Sci. **18** (2016), 1365–8050.
- C2. D. Kuziak, —, I. G. Yero, *Open k -monopolies in graphs: complexity and related concepts*, Discrete Math. Theor. Comput. Sci. **18** (2016), 18 str.
- C3. M. Changat, —, A. Ramachandran, *On gated sets in graphs*, Taiwanese J. Math. **20** (2016), 509–521.
- C4. M. Changat, —, A. Ramachandran, A. Tepeh, *The induced path transit function and the Pasch axiom*, Bull. Malays. Math. Sci. Soc. **39** (2016), 123–134.
- C5. D. Kuziak, —, I. G. Yero, *On the monopolies of lexicographic product graphs: bounds and closed formulas*, Bull. Math. Soc. Sci. Math. Roumanie (N.S.) **59 (107)** (2016), 355–366.
- C6. M. Anholcer, S. Cichacz, —, *Spectra of graphs and closed distance magic labelings*, Discrete Math. **339** (2016), 1915–1923.
- E1. Član programskega in organizacijskega odbora konference *Leoben-Ljubljana Graph Theory Seminar*, Judenburg, Avstrija, september 2016.
- F1. *A characterization of graphs with disjoint total dominating sets*, vabljeno predavanje, AGH University of Science and Technology, Kraków, Poljska, november 2016.
- G1. *Toll convexity*, 25th Workshop '3in1', Dosłońce, Poljska, november 2016.
- G2. *A characterization of graphs with disjoint total dominating sets*, 25th Workshop on Cycles and Colourings, Nový Smokovec, Slovaška, september 2016.
- G3. *A characterization of graphs with disjoint total dominating sets*, Leoben-Ljubljana Graph Theory Seminar, Judenburg, Avstrija, september 2016.

Ciril Petr:

- C1. A. M. Hinz, —, *Computational solution of an Old Tower of Hanoi problem*, International Conference on Graph Theory and its Applications, Coimbatore, Indija, december 2015, International Conference on Graph Theory and its Applications (Electronic Notes in Discrete Mathematics, 53), 445–458.

- G1. *Reaktivni model spleta in programiranja*, 21. konferenca OTS 2016, Maribor, junij 2016.
- G2. *Computational experiments on Hanoi graphs*, 8th International Conference on Information Technologies and Information Society (ITIS2016), Šmarješke Toplice, november 2016.
- H1. A. Krajnc, B. Štok, —, *Reaktivni model spleta in programiranja*, 21. konferenca OTS 2016, Maribor, junij 2016, Sodobne tehnologije in storitve : zbornik enaindvajsete konference, 1–9.

Lucijan Plevnik:

- C1. *Korelacijsko naključno vzorčenje jedrskih podatkov*, 3. konferenca mladih z Odseka za reaktorsko fiziko (F8) Instituta Jožef Stefan, Ljubljana, februar 2016, Zbornik 3. konference mladih z Odseka za reaktorsko fiziko (F8) Instituta Jožef Stefan, 39–44.
- C2. —, G. Žerovnik, *Computer code ENDSAM for random sampling and validation of the resonance parameters covariance matrices of some major nuclear data libraries*, Ann. Nucl. Energy **94** (2016), 510–517.
- C3. *On a matrix trace inequality due to Ando, Hiai and Okubo*, Indian J. Pure Appl. Math. **47** (2016), 491–500.
- G1. *Random sampling and validation of covariance matrices of resonance parameters*, ND2016 conference, Bruges, Belgija, september 2016.
- G2. *Korelacijsko naključno vzorčenje jedrskih podatkov*, 3. konferenca mladih z Odseka za reaktorsko fiziko (F8) Instituta Jožef Stefan, Ljubljana, februar 2016.
- G3. *Adjustment of U, Pu and Fe cross-sections based on k-eff, β-eff and shielding benchmark experiments*, WPEC SG39 meeting, Pariz, Francija, maj 2016.

Jasna Prezelj Perman:

- B1. Jasna Prezelj, *∂ -equation on (p,q) -forms on conic neighbourhoods of 1-convex manifolds*, sprejeto v objavo v Proc. Amer. Math. Soc.
- C1. *Positivity of metrics on conic neighborhoods of 1-convex submanifolds*, Internat. J. Math. **27** (2016), 24 str.
- C2. T. Knific, T. Malovrh, M. Potočnik, M. Pretnar, M. Krković, A. Vodopija, —, *Modeliranje širjenja kužnih bolezni: primer bolezni modri*

kastega jezika v Sloveniji, 6. slovenski veterinarski kongres, Portorož, december 2016, 6. Slovenski veterinarski kongres 2016, 73–77.

- E1. Članica organizacijskega odbora konference *Complex Analysis Workshop*, Ljubljana, marec 2016.
- E2. Članica znanstvenega odbora konference *Czech, Slovenian, Austrian, Slovak and Catalan Mathematical Societies joint meeting (CSASC 2016)*, Barcelona, Španija, september 2016.
- F1. *Positivity of metrics*, vabljeno predavanje, Complex Analysis and Complex Geometry, Banff, Kanada, maj 2016.
- F2. *Positivity of metrics on conic neighborhoods of 1-convex submanifolds*, vabljeno predavanje, Frontiers in Elliptic Holomorphic Geometry, Jevnaker, Norveška, oktober 2016.
- G1. *Modeliranje širjenja kužnih bolezni: primer bolezni modrikastega jezika v Sloveniji*, 6. slovenski veterinarski kongres, Portorož, december 2016.
 - I1. Mentorstvo pri 3 zaključnih nalogah.
 - I2. Poljudno predavanje: “Popotovanje od korena do fraktala” v okviru FAMNIT-ovih izletov; 7. cikel poljudnih predavanj o matematiki in njeni vlogi v sodobnem svetu.

Vicențiu Rădulescu:

- A1. G. Molica Bisci, —, R. Servadei, *Variational methods for nonlocal fractional problems*, Cambridge University Press, Cambridge, Velika Britanija, 2016.
- C1. M. Abdelwahed, N. Chorfi, —, *Numerical solutions to heat equations via the spectral method*, Electron. J. Differential Equations **2016** (2016), 1–11.
- C2. G. A. Afrouzi, M. Mirzapour, —, *Nonlocal fourth-order Kirchhoff systems with variable growth: low and high energy solutions*, Collect. Math. **67** (2016), 207–226.
- C3. G. A. Afrouzi, M. Mirzapour, —, *Qualitative analysis of solutions for a class of anisotropic elliptic equations with variable exponent*, Proc. Edinb. Math. Soc. (2) **59** (2016), 541–557.
- C4. B. Alleche, —, *Set-valued equilibrium problems with applications to Browder variational inclusions and to fixed point theory*, Nonlinear Anal. Real World Appl. **28** (2016), 251–268.

- C5. B. Alleche, —, *Solutions and approximate solutions of quasi-equilibrium problems in Banach spaces*, J. Optim. Theory Appl. **170** (2016), 629–649.
- C6. R. Alsaedi, H. Mâagli, —, N. Zeddini, *Entire bounded solutions versus fixed points for nonlinear elliptic equations with indefinite weigh*, Fixed Point Theory **17** (2016), 255–266.
- C7. I. Bachar, H. Mâagli, —, *Fractional Navier boundary value problems*, Bound. Value Probl. **2016** (2016), 1–14.
- C8. S. Baraket, —, *Combined effects of concave-convex nonlinearities in a fourth-order problem with variable exponent*, Adv. Nonlinear Stud. **16** (2016), 409–419.
- C9. N. Chorfi, —, *Standing wave solutions of a quasilinear degenerate Schrödinger equation with unbounded potential*, Electron. J. Qual. Theory Differ. Equ. **2016** (2016), 1–12.
- C10. N. Labropoulos, —, *On the best constants in Sobolev inequalities on the solid torus in the limit case $p = 1$* , Adv. Nonlinear Anal. **5** (2016), 261–291.
- C11. M. Mälín, —, *Infinitely many solutions for a nonlinear difference equation with oscillatory nonlinearity*, Ric. Mat. **65** (2016), 193–208.
- C12. N. S. Papageorgiou, —, *Coercive and noncoercive nonlinear Neumann problems with indefinite potential*, Forum Math. **28** (2016), 545–571.
- C13. N. S. Papageorgiou, —, *Infinitely many nodal solutions for nonlinear nonhomogeneous Robin problems*, Adv. Nonlinear Stud. **16** (2016), 287–299.
- C14. N. S. Papageorgiou, —, *Nonlinear nonhomogeneous Robin problems with superlinear reaction term*, Adv. Nonlinear Stud. **16** (2016), 737–764.
- C15. N. S. Papageorgiou, —, *Nonlinear elliptic problems with superlinear reaction and parametric concave boundary condition*, Israel J. Math. **212** (2016), 791–824.
- C16. N. S. Papageorgiou, —, *On noncoercive elliptic problems*, NoDEA Nonlinear Differential Equations Appl. **23** (2016), 17 str.
- C17. N. S. Papageorgiou, —, *Positive solutions of nonlinear Robin eigenvalue problems*, Proc. Amer. Math. Soc. **144** (2016), 4913–4928.
- C18. N. S. Papageorgiou, —, *Robin problems with indefinite, unbounded potential and reaction of arbitrary growth*, Rev. Mat. Complut. **29** (2016), 91–126.
- C19. S. Saiedinezhad, —, *Multiplicity results for a nonlinear Robin problem with variable exponent*, J. Nonlinear Convex Anal. **17** (2016), 1567–1582.

- C20. C. Vallée, —, K. Atchonouglo, *New variational principles for solving extended Dirichlet-Neumann problems*, J. Elasticity **123** (2016), 1–18.
- C21. M. Xiang, B. Zhang, —, *Existence of solutions for a bi-nonlocal fractional p -Kirchhoff type problem*, Comput. Math. Appl. **71** (2016), 255–266.
- C22. M. Xiang, B. Zhang, —, *Existence of solutions for perturbed fractional p -Laplacian equations*, J. Differential Equations **260** (2016), 1392–1413.
- C23. M. Xiang, B. Zhang, —, *Multiplicity of solutions for a class of quasilinear Kirchhoff system involving the fractional p -Laplacian*, Nonlinearity **29** (2016), 3186–3205.

- D1. Glavni urednik revije *Advances in Nonlinear Analysis*.
- D2. Član uredniškega odbora revije *Complex Variables and Elliptic Equations*.
- D3. Član uredniškega odbora revije *Electronic Journal of Differential Equations*.
- D4. Član uredniškega odbora revije *Journal of Mathematical Analysis and Applications*.
- D5. Član uredniškega odbora revije *Mathematics in Science and Engineering*.
- D6. Član uredniškega odbora revije *Nonlinear Analysis*.
- D7. Urednik zbornika *International Conference in honor of Hugo Beirão de Veiga's 70th Birthday, Recent Advances in PDEs and Applications*, Trento, Italija, februar 2016.

- F1. *Variational analysis of some classes of equilibrium problems*, vabljeno predavanje, 21st Colloquium of the Tunisian Mathematical Society, Hammamet, Tunizija, marec 2016.
- F2. *Combined singular effects in nonlinear problems*, vabljeno predavanje, International Conference on Applied Mathematics and Numerical Methods (ICAMNM), Craiova, Romunija, april 2016.
- F3. *A characterization property for a class of fractional equations*, vabljeno predavanje, 3rd Conference on Recent Trends in Nonlinear Phenomena, Perugia, Italija, september 2016.
- F4. *Singular phenomena in nonlinear elliptic equations*, vabljeno predavanje, Stockholms universitet, Stockholms matematikcentrum, Stockholm, Švedska, januar 2016.

Dušan Repovš:

- A1. A. Cacicchioli, F. Hegenbarth, —, *Higher-dimensional generalized manifolds: surgery and constructions*, European Mathematical Society, Zürich, Švica, 2016.
- C1. A. Kristály, —, *Quantitative Rellich inequalities on Finsler-Hadamard manifolds*, Commun. Contemp. Math. **18** (2016), 17 str.
- C2. T. Banakh, —, *Classifying homogeneous ultrametric spaces up to coarse equivalence*, Colloq. Math. **144** (2016), 189–202.
- C3. M. Boureanu, V. Rădulescu, —, *On a $p(\cdot)$ -biharmonic problem with no-flux boundary condition*, Comput. Math. Appl. **72** (2016), 2505–2515.
- C4. M. Ferrara, G. Molica Bisci, —, *Existence results for nonlinear elliptic problems on fractal domains*, Adv. Nonlinear Anal. **5** (2016), 75–84.
- C5. D. Garity, U. H. Karimov, —, F. Spaggiari, *A new class of homology and cohomology 3-manifolds*, Mediterr. J. Math. **13** (2016), 1277–1283.
- C6. G. Molica Bisci, —, R. Servadei, *Nontrivial solutions of superlinear nonlocal problems*, Forum Math. **28** (2016), 1095–1110.
- C7. —, A. J. Vesnin, *On Gehring-Martin-Tan groups with an elliptic generator*, Bull. Aust. Math. Soc. **94** (2016), 326–336.
- C8. —, M. Zaicev, *Graded PI-exponents of simple Lie superalgebras*, Ark. Mat. **54** (2016), 147–156.
- C9. X. Zhang, B. Zhang, —, *Existence and symmetry of solutions for critical fractional Schrödinger equations with bounded potentials*, Nonlinear Anal. **142** (2016), 48–68.
- D1. Član uredniškega sveta revije *Advances in Nonlinear Analysis*.
- D2. Član uredniškega odbora revije *Boundary Value Problems*.
- D3. Član uredniškega odbora revije *Journal of Mathematics and Applications*.
- D4. Član uredniškega odbora revije *Mediterranean Journal of Mathematics*.
- D5. Član uredniškega odbora revije *Nonlinear Analysis and Differential Equations*.
- F1. *New results on embeddings of Cantor sets and their applications to topology of 3-manifolds*, vabljeno predavanje, Geometry Colloquium, Università degli Studi di Trieste, Trst, Italija, januar 2016.
- F2. *Stationary Schrödinger-type equations with variable exponent*, vabljeno predavanje, 3rd Conference on Recent Trends in Nonlinear Phenomena, Perugia, Italija, september 2016.

- F3. *Nontrivial solutions of superlinear nonlocal problems*, vabljeno predavanje, Two nonlinear days in Urbino 2016, Urbino, Italija, julij 2016.

Pavle Saksida:

- G1. *On nonlinear Fourier transform - towards the nonlinear superposition*, XXIVth International Conference in Integrable Systems and Quantum Symmetries (ISQS-24) , Praga, Česka, junij 2016.
- I1. Mentorstvo pri enem diplomskem delu.

Raffaella Servadei:

- A1. G. Molica Bisci, V. Rădulescu, — , *Variational methods for nonlocal fractional problems*, Cambridge University Press, Cambridge, Velika Britanija, 2016.
- C1. A. Fiscella, G. Molica Bisci, — , *Bifurcation and multiplicity results for critical nonlocal fractional Laplacian problems*, Bull. Sci. Math. **140** (2016), 14–35.
- C2. A. Greco, — , *Hopf's lemma and constrained radial symmetry for the fractional Laplacian*, Math. Res. Lett. **23** (2016), 863–885.
- C3. G. Molica Bisci, D. Repovš, — , *Nontrivial solutions of superlinear nonlocal problems*, Forum Math. **28** (2016), 1095–1110.
- D1. Članica uredniškega odbora revije *Electronic Journal of Differential Equations*.
- F1. *Critical fractional equations with concave-convex nonlinearities*, vabljeno predavanje, Giornata sulle Equazioni Ellittiche Nonlineari, Perugia, Italija, januar 2016.
- F2. *Nonlocal fractional problems via variational methods*, vabljeno predavanje, Seminari del Dipartimento di Matematica Università di Bologna, Bologna, Italija, marec 2016.

Marko Slapar:

- C1. *On complex points of codimension 2 submanifolds*, J. Geom. Anal. **26** (2016), 206–219.

- F1. *On thom conjecture in CP³*, vabljeno predavanje, Tsingua Sanya International Mathematics Forum, Sanya, Kitajska, januar 2016.
- F2. *Totally real immersions and embeddings of simply connected 5 manifolds*, predavanje na University of Montenegro, Podgorica, 30. 11. 2016, Univerzitet Crne Gore, Podgorica, Črna Gora, november 2016.
- I1. Mentorstvo pri 3 magistrskih in 8 diplomskeih delih.

Jaka Smrekar:

- C1. F. Forstnerič, — , A. Sukhov, *On the Hodge conjecture for q-complete manifolds*, Geom. Topol. **20** (2016), 353–388.
- I1. Ena recenzija za MathSciNet.
- I2. Somentor pri enem magistrskem delu in mentor pri dveh delih diplomskega seminarja.

Tadej Starčič:

- C1. *On regular Stein neighborhoods of a union of two totally real planes in C²*, Ann. Polon. Math. **117** (2016), 1–15.
- F1. *On regular Stein neighborhoods of a union of two totally real subspaces in Cⁿ*, vabljeno predavanje, SCASC Mathematical Societies joint Meeting, Barcelona, Španija, september 2016.
- I1. Somentorstvo pri 4 diplomskeih delih.

Sašo Strle:

- B1. B. Owens, — , *Immersed disks, slicing numbers, and concordance unknotting numbers*, sprejeto v objavo v Comm. Anal. Geom.
- F1. *On the Thom conjecture in CP³*, vabljeno predavanje, Workshop on Flavours of Gauge Theory, Fields Institute, Toronto, Kanada, maj 2016.
- F2. *On the Thom conjecture in CP³*, vabljeno predavanje, Perspectives in topology and geometry of 4-manifolds, Dubrovnik, Hrvaška, junij 2016.
- F3. *On the Thom conjecture in CP³*, vabljeno predavanje, Workshop on 3-manifolds and Floer theories, Regensburg, Nemčija, julij 2016.

- F4. *On the Thom conjecture in CP^3* , vabljeno predavanje, University of Glasgow, Glasgow, Velika Britanija, september 2016.
- I1. Odgovorni urednik revije *Obzornik za matematiko in fiziko*.

Gregor Šega:

- G1. *Seeking for a joint pmf given the sum of the marginal distributions*, 25th International Workshop on Matrices and Statistics, Madeira, Portugalska, junij 2016.
- H1. *Triindvajseto mednarodno tekmovanje študentov matematike*, Obzornik Mat. Fiz. **63** (2016), 139–143.

Peter Šemrl:

- B1. C. de Seguins Pazzis, —, *Continuous space-time transformations*, sprejeto v objavo v Adv. Geom.
- B2. *Order and spectrum preserving maps on positive operators*, sprejeto v objavo v Canadian J. Math.
- C1. G. P. Gehér, —, *Isometries of Grassmann spaces*, J. Funct. Anal. **270** (2016), 1585–1601.
- C2. W. Huang, —, *The optimal version of Hua's fundamental theorem of geometry of square matrices - the low dimensional case*, Linear Algebra Appl. **498** (2016), 21–57.
- D1. Glavni urednik revije *Linear Algebra and Its Applications*.
- D2. Član uredniškega odbora revije *Linear and Multilinear Algebra*.
- D3. Član uredniškega odbora revije *Operators and Matrices*.
- E1. Član znanstvenega odbora konference *International Linear Algebra Society Conference 2016*, Leuven, Belgija, julij 2016.
- F1. *Automorphisms of Hilbert space effect algebras*, enourno vabljeno predavanje, Technical University Budapest, Budimpešta, Madžarska, marec 2016.
- F2. *Automorphisms of Hilbert space effect algebras*, kolokvijsko predavanje, University of Szeged, Szeged, Madžarska, marec 2016.
- F3. *Automorphisms of Hilbert space effect algebras*, enourno vabljeno predavanje, International Workshop on Operator Theory and Operator Algebras, Lizbona, Portugalska, julij 2016.

- F4. *Adjacency and coherency preservers*, plenarno predavanje, XXXVI Congresso Nacional de Matematica Aplicada e Computacional, Gramado, Brazilija, september 2016.
- F5. *Adjacency and coherency preservers*, enourno vabljeno predavanje, 3rd school on functional analysis and geometry, Buenos Aires, Argentina, september 2016.
- F6. *Isometries of Grassmann spaces*, vabljeno predavanje, RIMS Kyoto, Kyoto, Japonska, oktober 2016.
- F7. *Linear maps preserving invertibility*, vabljeno enourno predavanje, Pre-server problems and related topics, Tokio, Japonska, november 2016.
- I1. Predsednik *International Linear Algebra Society*.

Klemen Šivic:

- B1. M. Kandić, —, *On the dimension of the algebra generated by two positive semi-commuting matrices*, sprejeto v objavo v Linear Algebra Appl.
- B2. M. Kandić, —, *On the positive commutator in the radical*, sprejeto v objavo v Positivity.

Primož Šparl:

- C1. I. Antončič, —, *Classification of quartic half-arc-transitive weak metacirculants of girth at most 4*, Discrete Math. **339** (2016), 931–945.
- E1. Član znanstvenega odbora konference *PhD Summer School in Discrete Mathematics*, Rogla, junij 2016.
- F1. *On symmetric generalizations of generalized Petersen graphs*, predavanje na seminarju TopCombo seminar, Mississippi State University, Starkville, ZDA, april 2016.
- F2. *On half-arc-transitive graphs*, predavanje na Algebraic Graph Theory Seminar, Comenius University, Bratislava, Slovaška, oktober 2016.
- F3. *On n-distance-balanced graphs*, Predavanje na Bratislavský seminár z teórie grafov, Comenius University, Bratislava, Slovaška, oktober 2016.
- F4. *On half-arc-transitive graphs (II)*, predavanje na Algebraic Graph Theory Seminar, Comenius University, Bratislava, Slovaška, november 2016.
- G1. *Symmetric generalizations of generalized Petersen graphs to higher valencies*, Workshop on Geometric and Algebraic Combinatorics, Pécs,

Madžarska, maj 2016.

- I1. Mentor pri 3 diplomskih delih.
- I2. 3 recenzije za MathSciNet.

Janez Šter:

- B1. P. P. Nielsen, —, *Connections between unit-regularity, regularity, cleanliness, and strong cleanliness of elements and rings*, sprejeto v objavo v Trans. Amer. Math. Soc.
- B2. M. Habibi, A. Moussavi, —, *A note on rings with McCoy-like properties*, sprejeto v objavo v Comm. Algebra.
- B3. *Nil-clean quadratic elements*, sprejeto v objavo v J. Algebra Appl.
- C1. *Rings in which nilpotents form a subring*, Carpathian J. Math. **32** (2016), 251–258.
- G1. *Connections between unit-regularity, regularity, cleanliness, and strong cleanliness*, 33rd Ohio State-Denison Mathematics Conference, Columbus, Ohio, ZDA, maj 2016.
- H1. A. Peperko, —, *Pitagorov izrek*, Presek **43** (2016), št. 6, 4–6.

Aleš Toman:

- C1. L. Ferbar Tratar, B. Mojškerc, —, *Demand forecasting with four-parameter exponential smoothing*, Int. J. Prod. Econ. **181** (2016), 162–173.
- G1. *Enhancing the forecasting performance of the exponential smoothing methods*, 16th International Conference on Operational Research KOI 2016, Osijek, Hrvaška, september 2016.
- G2. *Extending the Holt-Winters smoothing methods and combining their forecasts for higher forecasting efficiency*, International Conference Applied Statistics 2016, Ribno (Bled), september 2016.
- G3. *Predstavitev tekmovanja iz statistike in finančne matematike*, Strokovno srečanje in 68. občni zbor DMFA Slovenije, Maribor, oktober 2016.
- I1. Soavtor enega učnega gradiva.
- I2. Avtor enega univerzitetnega učbenika.

Aleksej Turnšek:

- C1. D. Ilišević, —, *A quantitative version of Herstein's theorem for Jordan *-isomorphisms*, Linear Multilinear Algebra **64** (2016), 156–168.
- C2. *Circular two-sided multiplications*, Linear Multilinear Algebra **64** (2016), 2169–2176.

Riccardo Ugolini:

- B1. *A parametric jet interpolation theorem for holomorphic automorphisms of \mathbb{C}^n* , sprejeto v objavo v J. Geom. Anal.
- G1. *Parametric jet interpolation for automorphisms of \mathbb{C}^n* , Symposium in Complex Analysis and Geometry, Bedlęwo (Poznań), Poljska, junij 2016.
- G2. *Parametric jet interpolation for automorphisms of \mathbb{C}^n* , Frontiers in Elliptic Holomorphic Geometry, Jevnaker, Norveška, October 2016.

Aljaž Ule:

- C1. V. Swakman, L. Molleman, —, M. Egas, *Reputation-based cooperation: empirical evidence for behavioral strategies*, Evol. Hum. Behav. **37** (2016), 230–235.
- D1. Član uredniškega odbora revije *Serbian Journal of Management*.
- G1. *On economic foundation of meaning*, 9th Maastricht Behavioral and Experimental Economics Symposium (M-BEES), Maastricht University, Nizozemska, junij 2016.
- G2. *On economic foundation of meaning*, Norm, Actions, Games (NAG 2016), Toulouse, Francija, junij 2016.
- G3. *On economic foundation of meaning*, Economic Science Association International Meeting, Jeruzalem, Izrael, julij 2016.

Aleš Vavpetič:

- B1. —, Ž. Virk, *On the fundamental group of inverse limits*, sprejeto v objavo v Bull. Malays. Math. Sci. Soc.
- C1. L. Lampret, —, *(Co)homology of Lie algebras via algebraic Morse theory*, J. Algebra **463** (2016), 254–277.

- C2. *Commutators of cycles in permutation groups*, Ars Math. Contemp. **10** (2016), 67–77.
- C3. — , Z. Virk, *The right homotopy shift in the fundamental groups of inverse limits*, Topol. Algebra Appl. **208** (2016), 40–54.
- I1. Mentorstvo pri eni doktorski disertaciji, enim magistrskem in 4 diplomskih delih.

Dejan Velušček:

- C1. M. Gorenc Novak, — , *Prediction of stock price movement based on daily high prices*, Quant. Finance **16** (2016), 793–826.
- I1. Mentorstvo pri 4 magistrskih delih.

Aleksander Vesel:

- B1. Z. Shao, — , J. Xu, *The k -distance independence number and 2-distance chromatic number of Cartesian products of cycles*, sprejeto v objavo v Bull. Malays. Math. Sci. Soc.
- B2. Z. Shao, — , J. Xu, *Frequency assignment problem in networks with limited spectrum*, sprejeto v objavo v CEJOR Cent. Eur. J. Oper. Res.
- B3. *Regular coronoids and 4-tilings*, sprejeto v objavo v Discrete Appl. Math.
- C1. Y. Rho, — , *Linear recognition of generalized Fibonacci cubes $Q_h(111)$* , Discrete Math. Theor. Comput. Sci. **17** (2016), 349–362.
- H1. *Nekaj algoritmov za generiranje permutacij*, Presek **44** (2016), št. 2, 26–29.
- I1. 5 recenzij za MathSciNet.
- I2. Mentorstvo pri 2 magistrskih delih.

Vito Vitrih:

- C1. K. Ferjančič, M. Krajnc, — , *Construction of G^3 rational motion of degree eight*, Appl. Math. Comput. **272** (2016), 127–138.
- C2. J. Kozak, M. Krajnc, — , *G^1 interpolation by rational cubic PH curves in \mathbb{R}^3* , Comput. Aided Geom. Design **42** (2016), 127–138.

- C3. J. Kozak, M. Krajnc, —, *A quaternion approach to polynomial PN surfaces*, Comput. Aided Geom. Design **47** (2016), 172–188.
- G1. *C^2 -smooth isogeometric functions on two-patch geometries: basic construction and dimension study*, 9th International Conference on Mathematical Methods for Curves and Surfaces, Tønsberg, Norveška, junij 2016.

Aljaž Zalar:

- B1. *Operator Positivstellensätze for noncommutative polynomials positive on matrix convex sets*, sprejeto v objavo v J. Math. Anal. Appl.
- C1. *Matrix Fejér-Riesz theorem with gaps*, J. Pure Appl. Algebra **220** (2016), 2533–2548.
- F1. *Operator Positivstellensätze for noncommutative polynomials positive on matrix convex sets*, Algebra and Geometry seminar, University of Auckland, Auckland, Nova Zelandija, marec 2016.
- G1. *Operator Positivstellensätze for noncommutative polynomials positive on matrix convex sets*, International Workshop on Operator Theory and Applications (IWOTA), St. Louis, ZDA, julij 2016.
- G2. *Univariate matrix polynomials positive semidefinite on semialgebraic sets*, Summer School on Real Algebraic Geometry and Optimization, Georgia Tech, Atlanta, ZDA, julij 2016.

Lyubomyr Zdomskyy:

- C1. L. F. Aurichi, S. Spadaro, —, *Selective versions of chain condition-type properties*, Acta Math. Hungar. **148** (2016), 1–16.
- C2. A. Bella, Seç. Tokgöz, —, *Menger remainders of topological groups*, Arch. Math. Logic **55** (2016), 767–784.
- C3. S. S. Gabrielyan, J. Grebík, J. kÅkol, —, *The Ascoli property for function spaces*, Topology Appl. **214** (2016), 35–50.
- C4. A. Medini, J., van Mill, —, *A homogeneous space whose complement is rigid*, Israel J. Math. **214** (2016), 583–595.
- C5. A. Medini, —, *Every filter is homeomorphic to its square*, Bull. Pol. Acad. Sci. Math. **64** (2016), 63–67.
- C6. A. W. Miller, B. Tsaban, —, *Selective covering properties of product spaces, II: γ spaces*, Trans. Amer. Math. Soc. **368** (2016), 2865–2889.

- C7. B. Tsaban, —, *Arhangel'skii sheaf amalgamations in topological groups*, Fund. Math. **232** (2016), 281–293.
- F1. *Combinatorial covering properties weaker than the σ -compactness*, vabljeno predavanje, Winter School in Abstract Analysis 2016, Hejnice, Česka, januar 2016.
- F2. *Mathias forcing for filters and combinatorial covering properties*, vabljeno predavanje, Winter School in Abstract Analysis 2016, Hejnice, Česka, februar 2016.
- F3. *Hindman and Milliken-Taylor Theorems for topological spaces*, vabljeno predavanje, Winter School in Abstract Analysis 2016, Hejnice, Česka, februar 2016.
- F4. *Hurewicz spaces in the Laver model*, vabljeno predavanje, Novi Sad Conference in Set Theory and General Topology, Novi Sad, Srbija, junij 2016.

Sara Sabrina Zemljic:

- C1. M. Dominko, D. Trobec, M. Nedzbala, E. Sever, —, *Will the US gain from setting a framework for international trade, public procurement and rules of origin?*, 18th Portorož Business Conference, Portorož, november 2016, Removing the barricades, 83–101.
- G1. *Symmetries and orbits of Sierpiński graphs*, Symmetries and Covers of Discrete Objects, Queenstown, Nova Zelandija, februar 2016.
- G2. *Paths in Sierpiński(-type) graphs*, Distance in Graph 2016, A conference to celebrate the life and work of Mirka Miller, Ubud, Indonezija, julij 2016.

Emil Žagar:

- C1. B. Kovač, —, *Curvature approximation of circular arcs by low-degree parametric polynomials*, J. Numer. Math. **24** (2016), 95–104.
- I1. Mentorstvo pri enem magistrskem delu in 5 diplomskeih nalogah.

Janez Žerovnik:

- C1. R. Erveš, —, *Mixed connectivity of Cartesian graph products and bundles*, Ars Combin. **124** (2016), 49–64.

- C2. I. Hrastnik Ladinek, —, *On hamiltonian decomposition of direct graph bundle*, Int. J. Math. Models Methods Appl. Sci. **10** (2016), 120–133.
- C3. D. Kaljun, J. Petrišič, —, *Using Newton's method to model the spatial light distribution of an led with attached secondary optics*, Stroj. Vestn. **62** (2016), 307–317.
- C4. T. Novak, —, *Weighted domination number of cactus graphs*, Int. J. Appl. Math. **29** (2016), 401–423.
- C5. D. Rupnik Poklukar, —, *Reliability Hosoya-Wiener polynomial of double weighted trees*, Fund. Math. **147** (2016), 447–456.
- C6. P. Šparl, R. Witkowski, —, *Multicoloring of cannonball graphs*, Ars Math. Contemp. **10** (2016), 31–44.
- C7. T. Vizinger, —, *Towards better coordination of a retail supply chain distribution flow*, Nineteenth International Working Seminar on Production Economics, Innsbruck, Avstrija, februar 2016, Pre-prints, Linköping Universitet, 513–524.
- C8. H. Zupan, N. Herakovič, —, *A heuristic for the job shop scheduling problem*, 7th International Conference on Bioinspired optimization methods and their applications, Bled, maj 2016, Bioinspired optimization methods and their applications : proceedings of the Seventh International Conference on Bioinspired Optimization Methods and their Applications - BIOMA 2016, 187–198.
- C9. H. Zupan, —, N. Herakovič, *A hybrid metaheuristics for layout optimization in production cell*, 14th International Conference on Management and Innovative Technologies, Fiesa, september 2016, MIT 2016 : proceedings of the 14th International Conference on Management and Innovative Technologies, 81–87.
- D1. Član uredniškega odbora revije *Ars Mathematica Contemporanea*.
- D2. Član uredniškega odbora revije *Central European Journal of Operations Research (CEJOR)*.
- D3. Gostujoči urednik revije *Business Systems Research Journal*, Vol. **7**, No. 2 (2016): Special Issue.
- G1. *Improved approximation of LED spatial light distribution*, 16th International Conference on Operational Research, Osijek, Hrvaška, september 2016.
- I1. Predsednik Državne predmetne komisije za splošno maturo za matematiko.
- I2. Mentorstvo pri eni doktorski disertaciji.
- I3. Recenzent 2 študijskih gradiv (zbirke vaj).

- I4. Nekrolog : Petra Šparl (1975-2016), *Ars mathematica contemporanea*, **11** (2016) str. III.

TUJI GOSTI

Oddelek za matematiko je v letu 2016 gostil naslednje tuje goste:

Kyle Austin, 1 teden, Ben Gurion University, Beer-Sheva, Izrael, junij 2016, na povabilo Matije Cenclja,

Csilla Bujtás, 10 dni, Alfréd Rényi Institute of Mathematics, Budimpešta, Madžarska, maj 2016, na povabilo Sandija Klavžarja,

Jerzy Dydak, 2 meseca, University of Tennessee, Knoxville, ZDA, junij/julij 2016, na povabilo Matije Cenclja,

Jakov Eliashberg, 6 dni, Stanford University, Stanford, ZDA, september 2016, na povabilo Jasne Prezelj,

Dennis Garity, 2 meseca, Oregon State University, Corvallis, ZDA, julij/avgust 2016, na povabilo Dušana Repovša,

Jovan Golić, 3 krat po 2 dni, Telecom Italia, Torino, Italija, januar/julij/december 2016, na povabilo Aleksandra Jurišića,

Denise Halverson, 2 meseca, Brigham Young University, Provo, ZDA, maj/junij 2016, na povabilo Dušana Repovša,

Friedrich Haslinger, 4 dni, Univerza na Dunaju, Avstrija, marec 2016, na povabilo Barbare Drinovec Drnovšek,

Friedrich Hegenbarth, 1 mesec, Università degli studi di Milano, Milano, Italija, september/oktober 2016, na povabilo Dušana Repovša,

Mike Henning, 1 teden, University of Johannesburg, Johannesburg, Južna Afrika, junij 2016, na povabilo Sandija Klavžarja,

Farhad Jafari, 8 dni, University of Wyoming, Laramie, ZDA, april 2016, na povabilo Petra Šemrla,

Péter Juhász, 3 dni, Alfréd Rényi Institute of Mathematics, Budimpešta, Madžarska, februar 2016, na povabilo Boštjana Kuzmana,

David Kalaj, 5 dni, Univerza v Črni Gori, Podgorica, Črna Gora, november 2016, na povabilo Barbare Drinovec Drnovšek,

Umed Karimov, 2 meseca, Tajik Academy of Sciences, Dušanbe, Tadžikistan, marec/april 2016, na povabilo Dušana Repovša,

Matthias Kriesell, 6 dni, Technische Universität Ilmenau, Nemčija, julij 2016, na povabilo Gašperja Fijavža,

Bernhard Lamel, 4 dni, Univerza na Dunaju, Avstrija, marec 2016, na povabilo Barbare Drinovec Drnovšek,

Miodrag Mateljević, 4 dni, Univerza v Beogradu, Srbija, november 2016, na povabilo Barbare Drinovec Drnovšek,

Balázs Patkós, 4 dni, Alfréd Rényi Institute of Mathematics, Budimpešta, Madžarska, maj 2016, na povabilo Sandija Klavžarja,

Mehmetcik Pamuk, 1 teden, Middle Eastern Technical Universiy, Ankara, Turčija, september 2016, na povabilo Neže Mramor-Kosta,

Semra Pamuk, 1 teden, Middle Eastern Technical Universiy, Ankara, Turčija, september 2016, na povabilo Neže Mramor-Kosta,

Daniel Pellicer, 1 leto, Centro de Ciencias Mathematicas, UNAM Morelia, Morelia, Mehika, julij 2016/julij 2017 2016, na povabilo Primoža Šparla,

Douglas F. Rall, 7 dni, Furman University, Greenville, ZDA, avgust 2016, na povabilo Boštjana Brešarja,

Douglas Rall, 1 teden, Furman University, Greenville, ZDA, avgust 2016, na povabilo Sandija Klavžarja,

Yoomi Rho, 1 teden, Incheon National University, Incheon, Južna Koreja, februar 2016, na povabilo Sandija Klavžarja,

Tulsi Srinivasan, 1 teden, Ashoka University, Haryana, Indija, junij 2016, na povabilo Matije Cenclja,

Marek Svetlik, 4 dni, Univerza v Beogradu, Srbija, november 2016, na povabilo Barbare Drinovec Drnovšek,

Zsolt Tuza, 4 dni, Alfréd Rényi Institute of Mathematics, Budimpešta, Madžarska, maj 2016, na povabilo Sandija Klavžarja,

Ashok Vadekar, 4 dni, Sirius XM Satellite Radio, Waterloo, Kanada, februar 2016, na povabilo Aleksandra Jurišića,

Máté Vizer, 4 dni, Alfréd Rényi Institute of Mathematics, Budimpešta, Madžarska, maj 2016, na povabilo Sandija Klavžarja,

Alexander Volberg, 4 dni, Michigan State University, East Lansing, ZDA, julij 2016, na povabilo Oliverja Dragičevića,

Kirsti Wash, 7 dni, Trinity College, Hartford, CT, ZDA, avgust 2016, na povabilo Boštjana Brešarja,

Kirsti Wash, 1 teden, Trinity College, Hartford, CT, ZDA, avgust 2016, na povabilo Sandija Klavžarja.

GOSTOVANJA

Člani oddelka za matematiko so bili v letu 2016 na naslednjih raziskovalnih obiskih oziroma študijskih izpopolnjevanjih v tujini:

Janez Bernik, 2 tedna, University of Waterloo, Kanada, april/maj 2016,

Boštjan Brešar, 4 dni, Renyi Institute of Mathematics, Budimpešta, Maďarska, april 2016,

Boštjan Brešar, 1 teden, Furman University, Greenville, ZDA, maj 2016,
Franc Forstnerič, 3 mesece, Center for Advanced Study (CAS), Oslo, Norveška, oktober/december 2016,

Dejan Govc, 16 dni, Matematički Institut SANU, Beograd, Srbija, avgust/september 2016,

Urban Jezernik, 2 meseca, University of Toronto, Kanada, januar/marec 2016,

Aleksandar Jurišić, 2 dni, Srpska akademija nauka i umetnosti, Beograd, Srbija, maj 2016,

Sandi Klavžar, 1 teden, Furman University, Greenville, ZDA, maj 2016,

Sandi Klavžar, 5 dni, Nanjing University of Aeronautics & Astronautics, Nanjing, Kitajska, julij 2016,

Igor Klep, 1 teden, University of California, San Diego, ZDA, julij 2016,

Igor Klep, 1 teden, Texas A&M University, College Station, ZDA, avgust 2016,

Aleksander Malnič, 1 teden, Universidad del País Vasco, Bilbao, Španija, december 2016,

Tilen Marc, 1 teden, Laboratoire d'Informatique Fondamentale, Marseille, Francija, november 2016,

Janko Marovt, 3 mesece, Karl-Franzens-Universität Graz, Gradec, Avstrija, junij/september 2016 gostovanje Nežka Mramor-Kosta 1 teden Middle Eastern Technical University Ankara Turčija februar 2016 ,

Nežka Mramor-Kosta, 1 teden, Middle Eastern Technical University, Ankara, Turčija, december 2016,

Matjaž Omladič, 2 tedna, Saint Mary's University, Halifax, Kanada, avgust 2016,

Matjaž Omladič, 1 teden, University of Waterloo, Waterloo, Kanada, avgust 2016,

Marko Orel, 13 tednov, Sveučilište u Rijeci, Hrvatska, oktober/december 2016,

Aljoša Peperko, 2 dni, Technische Universität Graz, Gradec, Avstrija, april 2016,

Aljoša Peperko, 3 mesece, Technische Universität Graz, Gradec, Avstrija, junij/avgust 2016,

Jasna Prezelj, 10 dni, Stony Brook University, Stony Brook, ZDA, decembar 2016,

Peter Šemrl, 5 tednov, Niigata University, Niigata, Japonska, oktober/november 2016,

Klemen Šivic, 3 tedne, University of Auckland, Auckland, Nova Zelandija, januar/februar 2016,

Klemen Šivic, 2 dni, Univerzitet u Banjoj Luci, Banja Luka, Bosna in Hercegovina, maj 2016,

Klemen Šivic, 2 dni, Univerzitet u Banjoj Luci, Banja Luka, Bosna in Hercegovina, december 2016,

Primož Sparl, 3 mesece, Comenius University, Bratislava, Slovaška, oktober/december 2016,

Riccardo Ugolini, 3 mesece, Centre for Advanced Study (CAS), Oslo, Norveška, september/december 2016,

Aljaž Zalar, 5 mesecev, University of Auckland, Department of Mathematics, Auckland, Nova Zelandija, januar/maj 2016.

SEMINARJI

Seminar za algebro in funkcionalno analizo

Vodji seminarja sta Roman Drnovšek in Primož Moravec. V letu 2016 je seminar imel 29 sestankov, na katerih je bilo v povprečju 10 poslušalcev. Spletna stran seminarja je: <http://www.fmf.uni-lj.si/si/obvestila/aggregator/seminar-algebra-funkcionalna/>

Nik Stopar, *O rangu in strukturnem izreku za kotne algebре*, 7. 1.,

Bojan Kuzma, *Pregled problemov in rešitev iz 54. številke revije ILAS/IMAGE*, 14. 1.,

Marko Kandić, *O algebrah polinomsko kompaktnih operatorjev*, 21. 1.,

Ganna Kudryavtseva, *Proste poševne Boolove mreže*, 25. 2.,

Marjeta Kramar Fijavž, *O pozitivni vodljivosti robnih problemov*, 3. 3.,

Primož Moravec, *Eksponent Schurovega multiplikatorja grupe*, 10. 3.,

Aljoša Peperko, *Neenakosti za spektralni radij in operatorsko normo negativnih matrik*, 17. 3.,

Primož Potočnik, *Nekaj problemov iz teorije grup, zamaskiranih v grafovski jezik*, 24. 3.,

Jordan Stoyanov, *Probability measures and their moment (in)determinacy: Results and open questions*, 31. 3.,

Matej Brešar, *Algebре, določene z ničelnim produktom*, 7. 4.,

Tatjana Petek, *Ohranjevalci entropije konveksnih kombinacij stanj*, 14. 4.,

Damjana Kokol Bukovšek, *O razdalji v grafu komutativnosti*, 21. 4.,

Ilya Spitkovsky, *On the numerical range, normalized or not*, 5. 5.,

- Oliver Dragičević**, *Konveksnost potenčnih funkcij*, 12. 5.,
Marko Orel, *Nestandardne preslikave, ki ne povečujejo ranga 1 na sime-tričnih matrikah*, 19. 5.,
Tomaž Košir, *Simultano sebiadjungirane množice 3×3 matrik*, 26. 5.,
Karin Baur, *Cluster algebra structure of Grassmannians and related cluster categories*, 31. 5.,
Jurij Volčič, *Univerzalni obseg ulomkov tenzorskega produkta prostih alge-ber*, 16. 6.,
Markus Schweighofer, *Quadrature on curves and cubature on the plane via conic optimization and real algebraic geometry*, 6. 10.,
Marko Kandić, *Množice pozitivnih matrik s točkastim spektrom*, 13. 10.,
Polona Oblak, *On the Inverse Eigenvalue Problem for symmetric matrices and its subproblems*, 20. 10.,
Klemen Šivic, *Dimension of the algebra, generated by two positive semi-commuting matrices*, 27. 10.,
Ada Boralevi, *Orthogonal and unitary tensor decomposition from an al-gebraic perspective*, 10. 11.,
Michael Kaplin, *Hypocyclic and chaotic evolution families*, 17. 11.,
David Dolžan, *Metrična dimenzija totalnega grafa kolobarja*, 24. 11.,
Michael Kaplin, *The Black-Scholes evolution family*, 1. 12.,
Anita Buckley, *Positive semidefinite determinant representations of non-negative polynomials*, 7. 12.,
Peter Šemrl, *Order isomorphisms of operator intervals*, 15. 12.,
Rok Gregorič, *Representations, loop spaces, and the Riemann-Roch theo-rem*, 22. 12.

Seminar IMFM in FNM v Mariboru iz diskretne mate-matike

Seminar vodita Boštjan Brešar in Sandi Klavžar. V letu 2016 je imel 26 srečanj. V povprečju je bilo na seminarju 11 udeležencev. Najbolj obi-skano predavanje je bilo 7. 11. 2016 (16 poslušalcev). Domača stran se-minarja je na naslovu: <http://matematika-racunalnistvo.fnm.uni-mb.si/seminarji.aspx?idSeminarja=1>.

- Tim Kos**, *Hojev izrek o totalni dominaciji kartezičnega produkta grafov*, 4. 1.,
Petra Žigert Pleteršek, *Resonančni grafi fulerenov*, 11. 1.,
Tatiana Romina Hartinger, *1-perfectly orientable graphs and graph pro-ducts*, 18. 1.,

- Tim Kos**, *Dominacijska zaporedja v grafih Sierpińskega in grafih intervalov*, 22. 2.,
- Sandi Klavžar**, *Vložitve v skoraj centralne grafe polmera* 3, 29. 2.,
- Aleksander Kelenc**, *Povezavna metrična dimenzija grafov*, 7. 3.,
- Borut Lužar**, *On incidence colorings of graphs*, 14. 3.,
- Andreas M. Hinz (LMU München, Nemčija)**, *Cycles and Paths—Finite and Infinite*, 21. 3.,
- Maja Repnik**, *Metode reševanja problemov mehkega linearnega programiranja*, 1. del, 4. 4.,
- Andrej Taranenko**, *O Hausdorffovi razdalji med potmi, cikli in drevesi*, 11. 4.,
- Maja Repnik**, *Metode reševanja problemov mehkega linearnega programiranja*, 2. del, 18. 4.,
- Marko Jakovac**, *Varne množice v krepkih mrežah*, 25. 4.,
- Sandra Cigula**, *Povezanost v produktih grafov*, 9. 5.,
- Tina Zupanc**, *Alianse v grafih*, 1. del, 23. 5.,
- Tina Zupanc**, *Alianse v grafih*, 2. del, 30. 5.,
- Martin Milanič**, *Vector connectivity in graphs*, 6. 6.,
- Mojca Premzl**, *b-barvanja regularnih grafov in grafovskih produktov*, 13. 6.,
- Niko Tratnik**, *Strukturne lastnosti resonančnih grafov tubulenov in fulerenov*, pregledno, 3. 10.,
- Veronica Hernandez Martinez (Universidad Carlos III de Madrid, Španija)**, *Gromov hyperbolicity in graphs*, 10. 10.,
- Niko Tratnik**, *Strukturne lastnosti resonančnih grafov tubulenov in fulerenov*, 1. del, 17. 10.,
- Iztok Peterin**, *Graphs with Disjoint Total Dominating Sets*, 24. 10.,
- Boštjan Brešar**, *Pakirna barvanja kubičnih grafov*, 7. 11.,
- Niko Tratnik**, *Strukturne lastnosti resonančnih grafov tubulenov in fulerenov*, 2. del, 14. 11.,
- Aleksander Kelenc**, *Mešana metrična dimenzija grafov*, 21. 11.,
- Polona Repolusk**, *Cestninsko število kartezičnega in leksikografskega produkta grafov*, 28. 11.,
- Mojca Bračič**, *Konstrukcije prekrižno-kritičnih grafov s predpisanimi lastnostmi*, pregledno, 5. 12.

Seminar za verjetnost, statistiko in finančno matematiko

Vodje seminarja so Janez Bernik, Tomaž Košir in Mihael Perman. V letu 2016 se je zvrstilo 9 predavanj, na katerih je bilo v povprečju 12 poslušalcev. Informacije o seminarju so dostopne na spletnem naslovu <http://www.fmf>.

uni-lj.si/si/obvestila/agregator/seminar-financna-matematika/.

- Willem Fouché**, *On infinitesimal stochastic independence*, 28. 1.,
Martin Raič, *Normal approximation by Stein's method for sums and random measures*, 17. 3.,
Jernej Čopič, *Bilateral trade: burning money*, 24. 3.,
Matija Vidmar, *A couple of remarks on the convergence of σ -fields on probability spaces*, 19. 5.,
Sandra Alexio, *An extension of Gompertzian growth dynamics: Weibull and Fréchet models*, 26. 5.,
Nuša Mikuljan Šljivić, *Metoda križne entropije za ocenjevanje nelinearnih funkcij v Bayesovem VAR modelu*, 2. 6.,
Egon Zakrajšek, *Credit-market sentiment and the business cycle*, 9. 6.,
Jože Marinček, *Kaj dela podatkovni znanstvenik*, 24. 11.,
Matija Vidmar, *Another characterization of homogeneous Poisson processes*, 1. 12.

Seminar iz geometrije

Seminar iz geometrije se sestaja enkrat tedensko, vsak ponedeljek ob 10. uri. Vodijo ga Franci Forstnerič, Tomaž Košir, Janez Mrčun in Pavle Saksida. Na seminarju je bilo v povprečju 11 poslušalcev. V letu 2016 smo pripravili 15 predavanj. Spletna stran seminarja je <http://www.fmf.uni-lj.si/si/obvestila/agregator/seminar-geometrija/>.

- Anita Buckley**, *Uvodno predavanje*, 29. 2.,
Anita Buckley, *Izrek o ničlah*, 7. 3.,
Anita Buckley, *Singularne točke*, 14. 3.,
Anita Buckley, *Normalizacija in snopi*, 21. 3.,
Rok Gregorič, *Snopi in okolobarjeni prostori*, 4. 4.,
Rok Gregorič, *Etale prostori in snopi z algebraično strukturo*, 11. 4.,
Rok Gregorič, *Afine sheme*, 1. del, 18. 4.,
Rok Gregorič, *Afine sheme*, 2. del, 25. 4.,
Rok Gregorič, *Afine sheme*, 3. del, 9. 5.,
Rok Gregorič, *Afine sheme*, 4. del, 16. 5.,
Petra Poklukar, *O realni spektralni kompaktifikaciji Teichmuellerjevega prostora*, 23. 5.,
Rok Gregorič, *Lepljenje in neafine sheme*, 30. 5.,
Rok Gregorič, *Konstrukcije shem*, 6. 6.,

Djordje Baralić, *Pascal's Hexagrammum and Octogrammum Mysticum*,
3. 10.,

Blaž Jelenc, *Homotopnost preslikav med Liejevimi algebroidi*, 1. del, 19. 12.

Seminar za geometrijsko topologijo

Vodji seminarja sta Matija Cencelj in Dušan Repovš. V letu 2016 je imel seminar 30 sestankov. Seminar ima spletno stran <http://www.pef.uni-lj.si/sgt/>.

Neža Mramor-Kosta, *Topološka analiza podatkov - nekaj primerov*, 6. 1. (2 uri),

Sara Kališnik Verovšek, *Vztrajna homologija*, 13. 1. (2 uri),

Aleš Vavpetič, *Homologija Liejeve algebре strogo zgornje trikotnih matrik*, 24. 2. (2 uri),

Umed Karimov, *On ε -mappings of non triangulable manifolds*, 1. del, 2. 3. (2 uri),

Umed Karimov, *On ε -mappings of non triangulable manifolds*, 2. del, 9. 3. (2 uri),

Umed Karimov, *On ε -mappings of non triangulable manifolds*, 3. del, 16. 3. (2 uri),

Leon Lampret, *Simplicialni kompleksi grafovskih lastnosti*, 1. del, 23. 3. (2 uri),

Leon Lampret, *Simplicialni kompleksi grafovskih lastnosti*, 2. del, 30. 3. (2 uri),

Dejan Govc, *Aproksimativni izrek o živcu*, 3. del, 6. 4. (2 uri),

Dejan Govc, *Aproksimativni izrek o živcu*, 4. del, 13. 4. (2 uri),

Boštjan Gabrovšek, *A Khovanov homology construction for the chromatic polynomial*, 20. 4. (2 uri),

Petar Pavešić, *Topološka kompleksnost vlaknenja*, 4. 5. (2 uri),

Denise Halverson, *Tour of decomposition theory*, 1. del, 11. 5. (2 uri),

Denise Halverson, *Tour of decomposition theory*, 2. del, 18. 5. (2 uri),

Matija Cencelj, *Teorija dimenzije in razširljivost funkcij*, 25. 5. (2 uri),

Kyle Austin, *Rokhlin dimension and nuclear dimension*, 1. 6. (1 ura),

Tulsi Srinivasan, *The Lusternik-Schnirelmann category of general spaces*, 1. 6. (1 ura),

Wacław Marzantowicz, *Bourgin-Yang theorems for the p -toral groups*, 8. 6. (2 uri),

Leon Lampret, *Metoda Morsove teorije krajšanja v homološki algebri*, 15. 9. (2 uri),

- Mehmetcik Pamuk**, *Homotopy self-equivalences of manifolds*, 20. 9.
 (1 ura),
- Semra Pamuk**, *Periodic maps on simply connected 4-manifolds*, 20. 9.
 (1 ura),
- Friedrich Hegenbarth**, *Generalized manifolds - Some aspects*, 20. 9. (1 ura),
- Dorđe Baralić**, *Colorful versions of the Lebesgue, KKM, and Hex theorem*,
 5. 10. (2 uri),
- Leon Lampret**, *Simplicialne resolvente*, 1. del, 12. 10. (2 uri),
- Leon Lampret**, *Simplicialne resolvente*, 2. del, 19. 10. (2 uri),
- Dejan Govc**, *Leva in desna prepletanja*, 1. del, 26. 10. (2 uri),
- Dejan Govc**, *Leva in desna prepletanja*, 2. del, 2. 11. (2 uri),
- Dejan Govc**, *Leva in desna prepletanja*, 3. del, 9. 11. (2 uri),
- Boštjan Gabrovšek**, *Praktična uporaba orodja SnapPy*, 1. del, 16. 11.
 (2 uri),
- Boštjan Gabrovšek**, *Praktična uporaba orodja SnapPy*, 2. del, 23. 11.
 (2 uri),
- Boštjan Gabrovšek**, *Praktična uporaba orodja SnapPy*, 3. del, 30. 11.
 (2 uri),
- Petar Pavešić**, *Ali je lahko dvižni prostor povezan s potmi?*, 14. 12. (2 uri).

Seminar za teorijo grup in kombinatoriko

Vodje seminarja so Aleksander Malnič, Dragan Marušič in Primož Šparl. V letu 2016 se je seminar redno sestal 18 krat. Predavali so:

- Aleksander Malnič**, *Problem izomorfizma grafov*, 1. del, 7. 1.,
- Aleksander Malnič**, *Problem izomorfizma grafov*, 2. del, 14. 1.,
- Boštjan Kuzman**, *On a problem of Praeger and Gardiner*, 7. 3.,
- Gorazd Vasiljević**, *O simetričnih Nest grafih*, 1. del, 14. 3.,
- Primož Šparl**, *O simetričnih Nest grafih*, 2. del, 21. 3.,
- Alejandra Ramos Rivera**, *Generalizations of Bouwer graphs*, 1. del, 9. 5.,
- Alejandra Ramos Rivera**, *Generalizations of Bouwer graphs*, 2. del,
 23. 5.,
- Aleksander Malnič**, *The simultaneous conjugacy problem*, 21. 6.,
- Primož Šparl**, *On n -distance-balanced graphs*, 22. 9.,
- Aleksander Malnič**, *On the fundamental theorem of algebra*, 13. 10.,
- Gordon Williams**, *The search for symmetry in snarks*, 20. 10.,
- Daniel Pellicer**, *Roli's cube - a chiral structure in a 4-dimensional cube*,
 27. 10.,
- Boštjan Kuzman**, *O vpetih drevesih v polnem grafu*, 10. 11.,

- Gregor Spačal**, *Matematično ozadje algoritma PageRank*, 17. 11.,
Daniel Pellicer, *Twisting regular manifolds to obtain chiral ones*, 23. 11.,
Tatiana Romina Hartinger, *1-perfectly orientable graphs and graph products*, 30. 11.,
Nina Chiarelli, *Extendability of certain product graphs*, 7. 12.,
Marko Razpet, *Eduardo Lucas in njegovi prispevki v kombinatoriki*, 21. 12.

Seminar za kompleksno analizo

Seminar za kompleksno analizo vodita Josip Globevnik in Franc Forstnerič. Rednih članov je bilo 14. Sestajal se je praviloma enkrat tedensko. Spletno stran najdemo na naslovu: <http://www.fmf.uni-lj.si/si/obvestila/aggregator/seminar-kompleksna-analiza/>. V letu 2016 je imel 27 sestankov in povprečno 12 poslušalcev.

- Rok Gregorič**, *Izrek GAGA*, 1. del, 12. 1.,
Aleksander Simonič, *Algebraična hiperboličnost*, 23. 2.,
Rok Gregorič, *Uporabe in posplošitve izreka GAGA*, 1. 3.,
Marko Slapar, *O Thomovi domnevi*, 2. del, 8. 3.,
Evgeny Poletsky, *Hardy spaces on hyperconvex domains: recent advances*, 15. 3.,
Rok Gregorič, *Uporabe in posplošitve izreka GAGA*, 2. del, 29. 3.,
Franc Forstnerič, *The h -principle for minimal surfaces in \mathbb{R}^n and null curves in \mathbb{C}^n* , 5. 4.,
Riccardo Ugolini, *Parametric jet interpolation by holomorphic automorphisms of \mathbb{C}^n* , 19. 4.,
Oliver Dragičević, *L^p contractivity for semigroups generated by elliptic differential operators in divergence form*, 2. del, 10. 5.,
Rafael Torres, *Pseudo-holomorphic embeddings into almost-complex Euclidean space and CR regular embeddings into complex space*, 17. 5.,
Simone Diverio, *Rational curves on elliptic fiber spaces*, 24. 5.,
Blaž Mramor, *Minimisers of the Allen-Cahn equation on hyperbolic graphs*, 31. 5.,
Florian Bertrand, *Entire functions with harmonic $*$ -function in several complex variables*, 21. 6.,
Alexandre Sukhov, *Discs in polynomial hulls of singular manifolds*, 5. 7.,
Alexander Volberg, *Classical isoperimetric inequalities and Monge-Ampere equation with a drift*, 7. 7.,
Marc Burger, *Maximal representations, non Archimedean Siegel spaces, and buildings*, 23. 9.,

- Yakov Eliashberg**, *Flexibility in symplectic topology and its complex geometric ramifications*, 27. 9.,
- Barbara Drinovec Drnovšek**, *Holomorphic discs in complex manifolds*, 4. 10.,
- Tadej Starčič**, *On regular Stein neighborhoods of a union of two maximal totally real subspaces in \mathbb{C}^n* , 18. 10.,
- Luka Boc Thaler**, *Polynomial skew products with wandering Fatou components*, 25. 10.,
- David Kalaj**, *Harmonic mappings between surfaces*, 8. 11.,
- Marko Slapar**, *On totally real immersions and embeddings of simply connected 5-manifolds*, 15. 11.,
- Brett Chenoweth**, *Deformation retractions from spaces of continuous maps onto spaces of holomorphic maps*, 22. 11.,
- Miodrag Mateljević**, *Interior estimates for Poisson type inequality and quasiconformal hyperbolic harmonic mappings*, 29. 11.,
- Marek Svetlik**, *Isoperimetric inequality and related problems*, 1. 12.,
- Jasna Prezelj**, *Positivity on conic neighbourhoods*, 1. del, 13. 12.,
- Jasna Prezelj**, *Positivity on conic neighbourhoods*, 2. del, 20. 12.

Seminar iz kriptografije in teorije kodiranja

Vodja seminarja je Aleksandar Jurišić. Seminar je v letu 2016 imel 25 sestankov (skupno 51 ur predavanj).

V povprečju je bilo na seminarju 6 udeležencev.

Domača stran seminarja je na naslovu:

<http://lkrv.fri.uni-lj.si/~ajurisic/seminar/index.html>.

V letu 2016 so se zvrstila naslednja predavanja:

- Aleksandar Jurišić**, *Razbijanje izziva (in poletna šola)*, 9. del, 7. 1. (3 ure),
- Peter Nose**, *Raziskovalne aktivnosti v LKRV*, 14. 1. (2 uri),
- Ashok Vadekar**, *Razbijanje izziva*, 10. del, 21. 1. (2 uri),
- Aleksandar Jurišić**, *Implementacija DSA algoritma*, 21. 1. (3 ure),
- Peter Dolenc**, *e-Quiz V4*, 2. 3. (2 uri),
- Janoš Vidali**, *Hacking*, 1. del, 10. 3. (2 uri),
- Aleksandar Jurišić**, *Turingova nagrada 2015: Diffie in Hellman*, 17. 3. (1 ura),
- Matjaž Praprotnik**, *Hacking*, 2. del, 24. 3. (2 uri),
- Aleksandar Jurišić**, *Orodja za razbijanje transpozicijske šifre*, 31. 3. (2 uri),
- Petra Hvala**, *Grški tajnopus*, 7. 4. (2 uri),

Andraž Dobnikar, *Reševanje substitucijskih šifer*, 14. 4. (2 uri),
Janoš Vidali, *Cezarjev tajnopsis in slepe črke*, 21. 4. (2 uri),
Aleksandar Jurišić, *Razbijanje tajnopisa III*, 26. 5. (2 uri),
Aleksandar Jurišić, *Aplikacija e-Quiz*, 2. 6. (2 uri),
Lea Alič, *Aplikacija Kliker*, 9. 6. (2 uri),
Aleksandar Jurišić, *Aplikacija e-Quiz in Signali*, 16. 8. (2 uri),
Aleksandar Jurišić, *Krepko regularni grafi*, 13. 10. (2 uri),
Leon Lampert, *Moorovi grafi*, 20. 10. (2 uri),
Aleksandar Jurišić, *Mrežni grafi in hiperkocke*, 27. 10. (2 uri),
Janoš Vidali, *Regularnost in 1-homogenost Moorovih grafov*, 3. 11. (2 uri),
Aleksandar Jurišić, *Hacking*, 3. del, 10. 11. (2 uri),
Aleksandar Jurišić, *Primitivni in neprimitivni razdaljno-regularni grafi*, 17. 11. (2 uri),
Aleksandar Jurišić, *Hacking*, 4. del, 24. 11. (2 uri),
Leon Lampert, *Hacking*, 5. del, 1. 12. (2 uri),
Aleksandar Jurišić, *Krovi v Moorovih grafih*, 15. 12. (2 uri).

Seminar za numerično analizo

Seminar za numerično analizo vodi Bor Plestenjak. Seminar se je v letu 2016 sestal dvaindvajsetkrat. V povprečju je bilo na seminarju 9 udeležencev. Podatki o delu seminarja so dostopni na naslovu <http://www.fmf.uni-lj.si/si/obvestila/agregator/seminar-numericna-analiza/>.

Jaka Špeh, *Geometrija v praksi*, 6. 1. (1 ura),
Bor Plestenjak, *Konstrukcija optimalnih determinantnih upodobitev*, 1. del, 24. 2. (1 ura),
Matija Lokar, *Spletne storitev za poučevanje programiranja*, 2. 3. (1 ura),
Bor Plestenjak, *Poročilo s konference*, 23. 3. (1 ura),
Tadej Kanduč, *Izogeometrična analiza, škatlasti zlepki in reševanje PDE*, 30. 3. (1 ura),
Bor Plestenjak, *Konstrukcija optimalnih determinantnih upodobitev*, 2. del, 20. 4. (1 ura),
Andrej Muhič, *Poročilo o gostovanju na UCL v Londonu in konferenci Big Data Coruña 2016*, 4. 5. (1 ura),
Andrej Perne, *Konstrukcija kolokacijske spektralne metode z modificirano Fourierovo vrsto*, 11. 5. (1 ura),
Domen Močnik, *Numerično reševanje parcialnih diferencialnih enačb s programom FreeFEM++*, 18. 5. (1 ura),

- Michiel Hochstenbach**, *Some recent progress in generalized Krylov methods*, 1. 6. (1 ura),
- Bor Plestenjak**, *Poročila s konferenc in pogovor o delu seminarja v naslednjem študijskem letu*, 5. 10. (1 ura),
- Jan Grošelj**, *Zlepki nad Powell-Sabinovimi triangulacijami*, 1. del, 12. 10. (1 ura),
- Jan Grošelj**, *Zlepki nad Powell-Sabinovimi triangulacijami*, 2. del, 19. 10. (1 ura),
- Emre Mengi**, *Large-Scale Optimization of Eigenvalues*, 26. 10. (1 ura),
- Jan Grošelj**, *Zlepki nad Powell-Sabinovimi triangulacijami*, 3. del, 2. 11. (1 ura),
- Jan Grošelj**, *Zlepki nad Powell-Sabinovimi triangulacijami*, 4. del, 9. 11. (1 ura),
- Jernej Kozak**, *On Uniform Polynomial Curve Approximation*, 1. del, 16. 11. (1 ura),
- Jernej Kozak**, *On Uniform Polynomial Curve Approximation*, 2. del, 23. 11. (1 ura),
- Bor Plestenjak**, *Uniform determinantal representation*, 30. 11. (1 ura),
- Marjeta Krajnc**, *Interpolacija s prostorskimi racionalnimi PH krivuljami razreda 4*, 1. del, 7. 12. (1 ura),
- Marjeta Krajnc**, *Interpolacija s prostorskimi racionalnimi PH krivuljami razreda 4*, 2. del, 14. 12. (1 ura),
- Jaka Špeh**, *Domain parameterization with THB-splines*, 21. 12. (1 ura).

Topološki seminar

Seminar je imel v povprečju 12 udeležencev, vodil pa ga je Petar Pavešić. V letu 2016 se je zvrstilo 28 predavanj o raznih temah. Domača stran seminarja je na: <http://www.fmf.uni-lj.si/si/obvestila/agregator/seminar-topologija/>.

- Primož Škraba**, *Maximal persistence and other results in stochastic topology*, 2. del, 4. 1.,
- Damir Franetič**, *O homotopski togosti zančnega funkторja*, 11. 1.,
- Damir Franetič**, *O homotopski togosti zančnega funkторja: enoličnost razcepa*, 18. 1.,
- Jaka Smrekar**, *Gauss-Bonnetev izrek*, 2. del, 22. 2.,
- Jaka Smrekar**, *Gauss-Bonnetev izrek*, 3. del, 29. 2.,
- Jaka Smrekar**, *Gauss-Bonnetev izrek*, 4. del, 7. 3.,
- Jaka Smrekar**, *Gauss-Bonnetev izrek*, 5. del, 14. 3.,

- Jaka Smrekar**, *Gauss-Bonnetev izrek*, 6. del, 21. 3.,
Jaka Smrekar, *Gauss-Bonnetev izrek kot posledica izreka o indeksu*, 4. 4.,
Kyle Larson, *Torus surgery and embedding 3-manifolds*, 11. 4.,
Jaka Smrekar, *Lokalni izrek o indeksu*, 18. 4.,
Sašo Strle, *O topološkem 4-rodu torusnih vozlov*, 25. 4.,
Petar Pavešić, *Topološka kompleksnost vlaknenja*, 2. del, 9. 5.,
Petar Pavešić, *Topološka kompleksnost vlaknenja*, 3. del, 16. 5.,
Sašo Strle, *O Thomovi domnevi v CP^3* , 23. 5.,
Ian Agol, *The virtual fibering conjecture*, 30. 5.,
Wolfgang Herfort, *On the abelianization of the topologist's product; J. Chahal, TBA*, 21. 6.,
Djordje Baralić, *A short course on quasitoric manifolds*, 3. 10.,
Brett Chenoweth, *Deformation retractions from spaces of holomorphic maps onto spaces of continuous maps*, 10. 10.,
Rok Gregorič, *Operads and multicategories*, 17. 10.,
Rok Gregorič, *Operade in multikategorije*, 2. del, 24. 10.,
Maruša Baša, *Igra Hex in Brouwerjev izrek o negibni točki*, 7. 11.,
Sergio Cabello, *The complexity of finding a 2-sphere in a simplicial complex*, 14. 11.,
Davorin Lešnik, *Topologija in logika*, 21. 11.,
Davorin Lešnik, *Topologija in logika*, 2. del, 28. 11.,
Davorin Lešnik, *Topologija in logika*, 3. del, 5. 12.,
Davorin Lešnik, *Topologija in logika*, 4. del, 12. 12.,
Sara Kališnik, , Genska epistaza in oblike ujemanja. del, 19. 12.

Seminar IMFM in FNM v Mariboru iz topologije

Seminar vodita Iztok Banič in Uroš Milutinović. V letu 2016 je v okviru Seminarja bilo opravljenih 14 dveurnih predavanj. V povprečju je bilo na vsakem seminarju 6 udeležencev.

Obvestila so na spletni strani: <http://matematika-racunalnistvo.fnm.uni-mb.si/seminarji.aspx?idSeminarja=2>.

- Niko Tratnik**, *Klasifikacija sklenjenih ploskev*, 2. del, 11. 1. (2),
Iztok Banič, *Matematični utrinki z Nove Zelandije*, 18. 1. (2),
Iztok Banič, *Karakterizacija dimenzije inverznih limit*, 7. 3. (2),
Iztok Banič, *CC-zaporedja*, 4. 4. (2),
Matevž Črepnjak, *ICC-zaporedja*, 1. del, 11. 4. (2),
Uroš Milutinović, *Homotopske lastnosti krovnih prostorov*, 1. del, 30. 5. (2),

Uroš Milutinović, *Homotopske lastnosti krovnih prostorov*, 2. del, 6. 6. (2),

Uroš Milutinović, *Homotopske lastnosti krovnih prostorov*, 3. del, 13. 6. (2),

Sina Greenwood, *Connectedness and inverse limits with set-valued functions on intervals*, 22. 7. (2),

Iztok Banič, *Utrinki s konference 31st Summer Conference on Topology and its Applications v Leicesterju*, 24. 10. (2),

Uroš Milutinović, *Homotopske grupe*, 1. del, 7. 11. (2),

Uroš Milutinović, *Homotopske grupe*, 2. del, 14. 11. (2),

Boštjan Lemež, *Hiperprostora loka in kroLénice*, 28. 11. (2),

Daša Štesl, *Varšavski lok kot inverzna limita intervalov*, 19. 12. (2).

Mednarodni topološki seminar

Ljubljana–Maribor–Zagreb

Vodje seminarja so Sonja Štimac (Sveučilište u Zagrebu, Prirodoslovno-matematički fakultet), Iztok Banič (Univerza v Mariboru, Fakulteta za naravoslovje in matematiko) in Petar Pavešić (Univerza v Ljubljani, Fakulteta za matematiko in fiziko). V letu 2016 je imel 2 sestanka. V povprečju je bilo na seminarju 20 udeležencev.

Informacije o delu seminarja so na <http://matematika-racunalnistvo.fnm.uni-mb.si/seminarji.aspx?idSeminarja=6>.

Maribor

Vera Tonić, *New Methods for G-acyclic resolutions in cohomological dimension*, 19. 3.,

Nick Callor, *Pro-Covering fibrations*, 19. 3.

Ljubljana

Sibe Mardešić, *On a problem concerning products in the category of shape*, 14. 5.,

Iztok Banič, *An Anderson-Choquet-type theorem and a characterization of weakly chainable continua*, 14. 5.

ODDELEK ZA FIZIKO

PROJEKTI

V letu 2016 smo člani oddelka delovali v okviru raziskovalnega programa

Zvonko Jagličić, *Nove slikovno-analitske metode*, (P2-0348),

in infrastrukturnega programa

Vojko Jazbinšek, *Infrastrukturna dejavnost pri IMFM*, (I0-0002).

Sodelovali smo v enem domačem projektu:

J1-7032, *Janez Dolinšek*, Visokoentropijske kovinske spojine.

in v dveh mednarodnih projektih:

Zvonko Jagličić, *Magnetno-strukturne korelacije v arzenatih dvovalentnih prehodnih elementov*, BI-AT/16-17-005 (dvostranski z Avstrijo),

Zvonko Jagličić, *Uporaba magnetnih nanodelcev za termično spominsko celico*, BI-RS/16-17-026 (dvostranski z Srbijo).

VODENJE RAZISKOVALNEGA CENTRA

Zvonko Jagličić, *Center za magnetna merjenja CMag*, ki združuje raziskovalce iz več ustanov: FMF, FFA, FKKT, KI, IJS in IMFM.

BIBLIOGRAFIJE RAZISKOVALCEV

Patricia Cotič Smole:

- C1. — , M. Kržan, V. Bosiljkov, *Probabilistically based model error for the assessment of in-plane lateral resistance of unreinforced masonry blockwork*, 16th International Brick and Block Masonry Conference (IB-MAC 2016), Padova, Italija, junij 2016, Conference proceedings, 1515–1522.

- C2. E. Safaei, L. Hajikhanmirzaei, B. Karimi, A. Wojtczak, —, Y. Lee, *TEMPO-mediated aerobic oxidation of alcohols using copper(II) complex of bis(phenol) di-amine ligand as biomimetic model for galactose oxidase enzyme*, Polyhedron **106** (2016), 153–162.
- G1. *Exploring the functional sensitivity of concurrent EEG-fMRI at 7T using simultaneous multislice EPI*, OHBM 22nd Annual Meeting, Ženeva, Švica, junij 2016.
- G2. *EEG-fMRI at 7T using simultaneous multi-slice 2D-EPI: safety and functional sensitivity at the single-subject level*, ISMRM 24th Annual Meeting & Exhibition, Singapur, maj 2016.

Rok Hren:

- C1. A. Srakar, —, V. Prevolnik Rupel, *Health services utilization in older Europeans: An empirical study*, Organizacija **49** (2016), 127–137.
- C2. —, *Analyzing pharmaceutical policies: Hungary as a case study*, Macedonian Pharmaceutical Bull. **62(suppl)** (2016), 35–36.
- C3. A. Srakar, —, V. Prevolnik Rupel, *Health services utilization in older Europeans: an empirical study*, 35. mednarodna konferenca o razvoju organizacijskih znanosti, Portorož, marec 2016, Trajnostna organizacija, 997–1009.
- F1. *Cost-effectiveness assessment of opioid substitution treatment in Slovenia*, plenarno predavanje, 15th SEEAnet Symposium, Ljubljana, februar 2016.
- F2. *Value based pricing of oncological drugs: are we there yet?*, vabljeno predavanje, 3rd ECOP (European Conference of Oncology Pharmacy), Dubrovnik, Hrvaška, maj 2016.
- F3. *Pharmacoeconomics and the budget impact modelling (BIM)*, vabljeno predavanje, 6th Macedonian Congress of Radiology with International Participation, Ohrid, Makedonija, september 2016.
- F4. *Cost effectiveness threshold: from basics to a case study*, vabljeno predavanje, ISPOR Serbia Chapter 4th International Congress, Beograd, Srbija, september 2016.
- F5. *Odgovornost ali omejevanje: pomen vrednotenja stroškovne ucinkovitosti onkoloških zdravil*, vabljeno predavanje, Jesenski posvet v zdravstvu “Odgovornost v zdravstvu”, Gozd Martuljek, oktober 2016.
- F6. *Whose preferences should we use in economic evaluation studies - patients'*, vabljeno predavanje, Corvinus Health Policy and Health Economics Conference, Budimpešta, Madžarska, november 2016.

- G1. *Health services utilization in older Europeans: an empirical study*, 35th International Conference on Organizational Science Development, Portorož, marec 2016.
- G2. *Health care services utilization among elderly in Slovenia: critical assessment*, 6th Adriatic Congress of Pharmacoeconomics and Outcomes Research, Zagreb, Hrvaska, april 2016.
- G3. *Pharmacoeconomic evaluation of opioid substitution treatment in Slovenia*, 12th European Opiate Addiction Treatment Association Conference, Leiden, Nizozemska, maj 2016.
- G4. *Health services utilisation in older Europeans: an empirical study*, Healthy lives, Ženeva, Švica, junij 2016.
- G5. *Health services utilization and long-term care in older Europeans: an econometric study the lowest in the world and falling?*, 5th EBR Conference, Ljubljana, september 2016.
- G6. *The utilization of health services by the older Europeans: an econometric analysis*, ISPOR 19th annual European congress, Dunaj, Avstrija, november 2016.
- G7. *A cost-effectiveness analysis of detoxification and maintenance treatment with buprenorphine/naloxone combination in Turkey*, ISPOR 19th annual European congress, Dunaj, Avstrija, november 2016.
- G8. *Risk-sharing/performance-based arrangements in Central & Eastern Europe: implementation of managed entry agreements*, ISPOR 19th annual European congress, Dunaj, Avstrija, november 2016.
- G9. *Drug pricing in adriatic countries – is reference pricing the best option?*, ISPOR 19th annual European congress, Dunaj, Avstrija, november 2016.
- G10. *Cost-effectiveness of detoxification compared to maintenance treatment with buprenorphine/naloxone combination: Turkey as a case study*, 12th Global Addiction 2016, Benetke, Italija, december 2016.
- I1. Moderator dveh sekcij: “Extending the use of biosimilar drugs: are we willing to accept the uncertainty related to switching in order to improve patient access to modern medicines?” in “Medical device & diagnostic research studies” na ISPOR 19th Annual European Congress, Dunaj, Avstrija.

Zvonko Jagličić:

- B1. S. Pršič, S. M. Savić, Z. Branković, — , S. Vrtnik, G. Branković, *Antiferromagnetism and heat capacity of NaCo_{2-x}Cu_xO₄ ceramics*, sprejeto

- v objavo v Ceram. Int.
- B2. Z. Mazej, T. Gilewski, E. Goreshnik, —, M. Derzsi, W. Grochala, *Canted antiferromagnetism in two-dimensional silver(II) Bis[pentafluorooxidotungstate(VI)]*, sprejeto v objavo v Inorg. Chem.
- B3. B. Dojer, A. Pevec, —, M. Kristl, *Cobalt(II) complexes with hydroxypyridines and halogenides*, sprejeto v objavo v J. Mol. Struct.
- B4. E. Safaei, H. Bahrami, A. Pevec, B. Kozlevčar, —, *Copper(II) complex of new non-innocent O-aminophenol-based ligand as biomimetic model for galactose oxidase enzyme in aerobic oxidation of alcohols*, sprejeto v objavo v J. Mol. Struct.
- B5. Mat. Mihalik, Mar. Mihalik, —, R. Vilarinho, J.A. Reira, E. Queiros, P.B. Vares, A. Almeida, M. Zentková, *Magnetic phase diagram of the TbMn_{1-x}Fe_xO₃ solid solution system*, sprejeto v objavo v Phys. B, Condens. Matter.
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Marko Jagodič:

- B1. S. Gyergyek, D. Makovec, — , M. Drofenik, K. Schenk, O. Jordan, J. Kovac, G. Dražic, H. Hofmann, *Hydrothermal growth of iron oxide NPs with a uniform size distribution for magnetically induced hyperthermia: structural, colloidal and magnetic properties.*, sprejeto v objavo v J. Alloy. Compd.
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- I1. Organizacija Raziskovalnih dnevov iz fizike za srednješolce, september, 2016.
- I2. Mentorstvo pri enem diplomskem delu.

Vojko Jazbinšek:

- B1. S. Beguš, J. Pirnat, — , Z. Trontelj, *Optical detection of low frequency NQR signals: A step forward from conventional NQR*, sprejeto v objavo v J. Phys. D, Appl. Phys.
- C1. *New algorithm for automatic determination of systolic and diastolic blood pressures in oscillometric measurements*, MIPRO 2016, 39th International Convention, Opatija, Hrvatska, maj 2016, Mipro proceedings, 467–471.
- C2. *Optimizacija merilnih tuljav pri jedrski kvadrupolni resonanci*, 25. mednarodna Elektrotehniška in računalniška konferenca (ERK 2016), Portorož, september 2016, Zbornik petindvajsete mednarodne Elektrotehniške in računalniške konference ERK 2016, B: 302–305.

- G1. *New algorithm for automatic determination of systolic and diastolic blood pressures in oscillometric measurements*, MIPRO 2016, 39th International Convention, Opatija, Hrvaška, maj 2016.
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Janez Pirnat:

- B1. S. Beguš, —, V. Jazbinšek, Z. Trontelj, *Optical detection of low frequency NQR signals: A step forward from conventional NQR*, sprejeto v objavo v J. Phys. D, Appl. Phys.

Zvonko Trontelj:

- B1. S. Beguš, J. Pirnat, V. Jazbinšek, —, *Optical detection of low frequency NQR signals: a step forward from conventional NQR*, sprejeto v objavo v J. Phys. D, Appl. Phys.
- I1. Mentorstvo pri enem diplomskem delu.

TUJI GOSTI

Oddelek za fiziko je v letu 2016 gostil naslednje tuje goste:

Tamara Đorđević, 6 dni, Univerza na Dunaju, Avstrija, maj 2016, na povabilo Zvonka Jagličića,

Sabrina Gerger, 2 dni, Univerza na Dunaju, Avstrija, maj 2016, na povabilo Zvonka Jagličića,

Marija Perović, 7 dni, Inštitut Vinča, Srbija, december 2016, na povabilo Zvonka Jagličića,

Vojislav Spasojević, 7 dni, Inštitut Vinča, Srbija, december 2016, na povabilo Zvonka Jagličića,

Marko Bošković, 11 dni, Inštitut Vinča, Srbija, december 2016, na povabilo Zvonka Jagličića.

GOSTOVANJA

Člani oddelka za fiziko so bili v letu 2016 na naslednjih gostovanjih:

Zvonko Jagličić, 8 dni, Inštitut Vinča, Srbija, september 2016,

Zvonko Jagličić, 5 dni, Univerza na Dunaju, Avstrija, julij 2016.

SEMINARJI

Sodelavci Oddelka za fiziko sodelujejo na seminarjih, ki potekajo na Oddelku za fiziko FMF in na Oddelkih za fiziko in biofiziko Inštituta J. Stefan.

ODDELEK ZA TEORETIČNO RAČUNALNIŠTVO

PROJEKTI

V letu 2016 smo člani oddelka delovali v okviru programske skupine:

Tomaž Pisanski, *Računsko intenzivne metode v teoretičnem računalništvu, diskretni matematiki, kombinatorični optimizaciji ter numerični analizi in algebri z uporabo v naravoslovju in družboslovju*, (P1–0294),

in nadaljevali z delom pri projektu:

J5–5537, *Vladimir Batagelj*, Omrežja sodelovanj v slovenski znanosti.

MLADI RAZISKOVALCI

V okviru oddelka se je v letu 2016 usposabljal mladi raziskovalec:

Toledo Roy Micael Alexi, mentor P. Potočnik.

BIBLIOGRAFIJE RAZISKOVALCEV

Vladimir Batagelj:

- C1. S. Praprotnik, —, *Spectral centrality measures in temporal networks*, Ars Math. Contemp. **11** (2016), 11–33.
- C2. — , S. Praprotnik, *An algebraic approach to temporal network analysis based on temporal quantities*, Soc. Network Anal. Min. (SNAM) **6** (2016), 12 str.
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- D1. Član uredniškega odbora revije *Informatica*.
 - D2. Član uredniškega odbora revije *Journal of Social Structure*.
 - D3. Član uredniškega odbora revije *Metodološki zvezki / Advances in Methodology and Statistics*.
 - D4. Član uredniškega odbora revije *Social Network Analysis and Mining*.
 - D5. Član svetovalnega odbora revije *Ars Mathematica Contemporanea*.
-
- E1. Član mednarodnega programskega odbora konference *International conference 13th Applied Statistics*, Ribno, september 2016.
 - E2. Član mednarodnega programskega odbora konference *1st meeting of COST Action CA15109*, Ribno, september 2016.
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- F1. *IFIP 1971 in začetki računalništva v Sloveniji - osebni pogled*, vabljeno predavanje, Information Society / Informacijska družba 2016, Ljubljana, oktober 2016.
 - F2. *Omrežja - kratek prikaz analize omrežij*, vabljeno predavanje, Občni zbor DMFA Slovenije 2016, Maribor, oktober 2016.
 - F3. *Analysis of bibliographic networks*, PhD course on networks, vabljeno predavanje, Uppsala University, Uppsala, Švedska, november 2016.
-
- G1. *Network Analysis of “Peer Review” Literature*, Data Science & Social Research International Conference, Neapelj, Italija, februar 2016.
 - G2. *Analysis of Peer Review data from WoS; part 3: temporal analyses*, PEERE (COST Action TD1306) meeting, Valencia, Španija, marec 2016.
 - G3. *Microsoft Academic Graph*, XXXVI Sunbelt 2016; Viszards session, Newport Beach, California, ZDA, april 2016.
 - G4. *Corrected network elements importance measure*, XXXVI Sunbelt 2016, Newport Beach, California, ZDA, april 2016.
 - G5. *Symbolic data analysis - Clustering of large data sets of mixed units*, CRoNoS (COST Action IC1408) meeting, Colegio de Espa?a, Pariz, Francija, april 2016.
 - G6. *Network visualization based on JSON and D3.js*, Workshop. Second European Conference on Social Networks, Pariz, Francija, junij 2016.
 - G7. *On the widespread index*, Second European Conference on Social Networks, Pariz, Francija, junij 2016.
 - G8. *Some ideas*, Kinsources Conference, College de France, Pariz, Francija, julij 2016.
 - G9. *Generalized ANOVA*, International Conference Applied Statistics 2016, Ribno, september 2016.
 - G10. *Temporal cores in networks*, International Conference Applied Stati-

stics 2016, Ribno, september 2016.

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- G12. *Symbolic network analysis of bike sharing data - Citi Bike*, CMStatistics 2016, Sevilla, Španija, december 2016.

Andrej Bauer:

- C1. —, *Five stages of accepting constructive mathematics*, Bull. Amer. Math. Soc. (2016), 1–18.
- C2. T. Stepišnik Perdih, P. Panov, —, S. Džeroski, *Primerjava razdalj pri klasifikaciji in regresiji*, Slovenska konferenca o umetni inteligenci, Ljubljana, oktober 2016, Zbornik 19. mednarodne multikonference Informacijska družba - IS 2016, 68–71.
- E1. Soorganizator konference *Dagstuhl Seminar 16112: From Theory to Practice of Algebraic Effects and Handlers*, Dagstuhl, Nemčija, marec 2016.
- E2. Lokalna organizacija konference *Third conference of the European Society for Mathematics and the Arts*, Ljubljana, september 2016.
- F1. *The real numbers and homotopy type theory*, vabljeno predavanje, 13th International Conference on Computability and Complexity in Analysis, Faro, Portugalska, junij 2016.
- F2. *The Andromeda proof assistant*, vabljeno predavanje, Workshop on Categorical Logic and Univalent Foundations, Leeds, Velika Britanija, julij 2016.
- G1. *Are all functions continuous and how to prove it?*, From theory to practice of algebraic effects and handlers, Dagstuhl, Nemčija, marec 2016.
- G2. *Design and implementation of the Andromeda proof assistant*, TYPES 2016, Novi Sad, Srbija, maj 2016.
- G3. *On self-interpreters for Gödel's System T*, TYPES 2016, Novi Sad, Srbija, maj 2016.
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- G5. *Primerjava razdalj pri klasifikaciji in regresiji*, Slovenska konferenca o umetni inteligenci, Ljubljana, oktober 2016.

Matevž Bren:

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- G2. *Merjenje teže kaznivih dejanj z uporabo Thurstonove lestvice za merjenje stališč*, 17. slovenski dnevi varstvoslovja, Kranjska Gora, junij 2016.
- G3. *Computer simulations of urethane-induced carcinogenesis*, 28th Math/Chem/Comp conference, Dubrovnik, Hrvaška, junij 2016.
- G4. *Validity of Thurston's method of measuring crime seriousness in Slovenia*, 16th Annual Conference of the European Society of Criminology, Münster, Nemčija, september 2016.
- G5. *Determination of the periodicity and synchronization of anticipative agent based supply-demand model*, 5th International Workshop on Mathematical Models and their Applications, Krasnojarsk, Rusija, november 2016.
- I1. Avtor univerzitetnega študijskega gradiva za Erasmus študente.
- I2. Mentor pri enem magistrskem in 2 diplomskeih delih, somentor pri doktorski disertaciji in 2 diplomskeih delih.

Boris Horvat:

- D1. Tehnični urednik revije *Ars Mathematica Contemporanea*.
- D2. Tehnični urednik digitalne enciklopedije naravne in kulturne dediščine na Slovenskem *DEDI*, <http://www.dedi.si>
- D3. Član uredniškega odbora spletnne enciklopedije *Encyclopedia of graphs*, <http://atlas.gregas.eu>
- G1. *Comparative analysis of the European forest sector production 2008–2013*, 59th SWST International Convention : Forest resource and pro-

ducts : moving toward a sustainable future, Curitiba, Brasil, marec 2016.

Gašper Jaklič:

- C1. —, *Uniform approximation of a circle by a parametric polynomial curve*, Comput. Aided Geom. Design **41** (2016), 36–46.
- G1. *Parametric polynomial circle approximation*, 9th International Conference on Mathematical Methods for Curves and Surfaces, Tønsberg, Norveška, junij 2016.
- G2. *Parametric polynomial circle approximation*, 4th Dolomites Workshop on Constructive Approximation and Applications, Alba di Canazei, Italija, september 2016.
- I1. Mentor pri 5 diplomskih delih.
- I2. 9 recenzij za MathSciNet.
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Matjaž Konvalinka:

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Simona Korenjak-Černe:

- G1. *Clustering age-sex structures to monitor their development over time: Latin America and the Caribbean sub-national areas 1960-2011*, The 2016 British Society for Population Studies Annual Conference – BSPS 2016, Winchester, Velika Britanija, september 2016.
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Jurij Kovič:

- B1. J. Bokowski, — , T. Pisanski, A. Žitnik, *Combinatorial configurations, quasiline arrangements, and systems of curves on surfaces*, sprejeto v objavo v Ars Math. Contemp.
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I1. 2 recenziji za MathSciNet.

I2. 5 opisov knjig za Obzornik za matematiko in fiziko.

Marko Petkovšek:

C1. S. A. Abramov, —, A. Ryabenko, *Resolving sequences of operators for linear ordinary differential and difference systems of arbitrary order*, Comput. Math. Math. Phys. **256** (2016), 894–910.

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Tomaž Pisanski:

A1. I. Drobnač, A. Ljubetič, H. Gradišar, —, R. Jerala, *Designed protein origami*, poglavje v *Protein-based engineered nanostructures* (Advances in experimental medicine and biology, 940), str. 7–27, Springer, Cham, Švica, 2016.

C1. N. Bašić, P. W. Fowler, —, *Coronoids, patches and generalised altans*, J. Math. Chem. **54** (2016), 977–1009.

C2. F. Belardo, —, S. Simić, *On graphs whose least eigenvalue is greater than -2*, Linear Multilinear Algebra **64** (2016), 1570–1582.

C3. V. Kočar, J. S. Schreck, S. Čeru, H. Gradišar, N. Bašić, —, J. P. K. Doye, R. Jerala, *Design principles for rapid folding of knotted DNA nanostructures*, Nature Communications **7** (2016), 1–8.

C4. J. Bokowski, J. Kovič, —, A. Žitnik, *Selected open and solved problems in computational synthetic geometry*, Geometry Conference, Mulhouse, Francija, september 2014, Convexity and discrete geometry including

graph theory (Springer Proceedings in Mathematics & Statistics, 148), 219–229.

- D1. Glavni in odgovorni urednik revije *Ars Mathematica Contemporanea*.
- D3. Član uredniškega odbora spletnje enciklopedije *Encyclopedia of graphs*, <http://atlas.gregas.eu>
- I1. Mentorstvo pri eni doktorski disertaciji.
- I2. Pisec recenzij za revijo *Informatica*.
- I3. Član uredniškega sveta revije *Logika in razvedrilna matematika*.

Bor Plestenjak:

- C1. *Numerical methods for nonlinear two-parameter eigenvalue problems*, BIT **56** (2016), 241–262.
- C2. —, M. E. Hochstenbach, *Roots of bivariate polynomial systems via determinantal representations*, SIAM J. Sci. Comput. **38** (2016), A765–A788.
- F1. *Roots of bivariate polynomial systems via determinantal representations*, vabljeno predavanje, Structured Matrix Computations with Applications, Sanya, Kitajska, marec 2017.
- I1. Mentor pri enem diplomskem delu in 2 magistrskih delih na 2. stopnji.

Primož Potočnik:

- C1. K. Berčič, —, *Two-arc-transitive two-valent digraphs of certain orders*, Ars Math. Contemp. **11** (2016), 127–146.
- C2. L. Jensterle, —, P. Blatnik, B. Bizjan, *Elektronske klinične poti po svetu in pri nas = Electronic clinical pathways in Slovenia and globally*, Med. Razgl. **55** (2016), 13–21.
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- C4. —, P. Spiga, G. Verret, *Groups of order at most 6,000 generated by two elements, one of which is an involution, and related structures*, 5th SIGMAP Workshop, West Malvern, Velika Britanija, julij 2014, Symmetries in graphs, maps, and polytopes, 273–286.
- D1. Član uredniškega odbora revije *Ars Mathematica Contemporanea*.
- D2. Član uredniškega odbora spletnje enciklopedije *Encyclopedia of graphs*, <http://atlas.gregas.eu>

- G1. *Symmetric tetravalent graphs as covers of doubled cycles*, Workshop on Geometric and algebraic combinatorics, Pécs, Madžarska, maj 2016.

Selena Praprotnik:

- C1. —, V. Batagelj, *Spectral centrality measures in temporal networks*, Ars Math. Contemp. **11** (2016), 11–33.
C2. V. Batagelj, —, *An algebraic approach to temporal network analysis based on temporal quantities*, Soc. Network Anal. Min. (SNAM) **6** (2016), 12 str.

I1. Soavtorica enega univerzitetnega učnega gradiva.

Arjana Žitnik:

- B1. J. Bokowski, J. Kovič, T. Pisanski, —, *Combinatorial configurations, quasiline arrangements, and systems of curves on surfaces*, sprejeto v objavo v Ars Math. Contemp.
- C1. J. Bokowski, J. Kovič, T. Pisanski, —, *Selected open and solved problems in computational synthetic geometry*, Geometry Conference, Mulhouse, Francija, september 2014, Convexity and discrete geometry including graph theory (Springer Proceedings in Mathematics & Statistics, 148), 219–229.
- C2. M. . E. Conder, —, *Half-arc-transitive graphs of arbitrary even valency greater than 2*, European J. Combin. **54** (2016), 177–186.
- G1. *Chiral astral realizations of cyclic 3-configurations*, Leoben–Ljubljana Graph Theory Seminar, Judenburg, Avstrija, september 2016.
- I1. Avtorica enega univerzitetnega učnega gradiva.
I2. Mentorstvo pri enem diplomskem delu in eni diplomski nalogi.

TUJI GOSTI

Oddelek za teoretično računalništvo je v letu 2016 gostil naslednje tuje goste:

Willem Fouché, 3 tedne, University of South Africa, Pretoria, Južnoafriška republika, januar 2016, na povabilo Andreja Bauerja,
Michiel Hochstenbach, 24 dni, TU Eindhoven, Nizozemska, maj/junij 2016, na povabilo Bora Plestenjaka,

Klaus Keimel, 1 teden, TU Darmstadt, Darmstadt, Nemčija, maj 2016, na povabilo Andreja Bauerja,

Igor Konov, 1 teden, TU Wiend, Dunaj, Avstrija, maj 2016, na povabilo Andreja Bauerja,

Peter LeFanu Lumsdaine, 2 tedna, University of Stockholm, Stockholm, Švedska, november 2016, na povabilo Andreja Bauerja,

Emre Mengi, 6 dni, Koç University, Carigrad, Turčija, oktober 2016, na povabilo Bora Plestenjaka,

Jaap van Oosten, 3 mesece, Utrecht University, Utrecht, Nizozemska, september/november 2016, na povabilo Andreja Bauerja,

Egbert Rijke, 1 teden, Carnegie Mellon University, Pittsburgh, ZDA, januar 2016, na povabilo Andreja Bauerja,

Fredrik Nordvall Forsberg, 1 teden, University of Strathclyde, Glasgow, Velika Britanija, maj 2016, na povabilo Andreja Bauerja,

Mathias Schroeder, 1 teden, TU Darmstadt, Darmstadt, Nemčija, marec 2016, na povabilo Andreja Bauerja.

GOSTOVANJA

Marko Petkovšek, 1 teden, Vyčislitel'nyj centr im. A. A. Dorodnicyna RAN (Dorodnicyn Computing Centre of RAS), Moskva, Rusija, junij/julij 2016,

Bor Plestenjak, 3 dni, Sveučilište Josipa Jurja Strossmayera u Osijeku, Hrvatska, februar 2017.

SEMINARJI

Seminar za diskretno matematiko

V okviru seminarja za diskretno matematiko – vodja seminarja je Primož Potočnik, tajnica seminarja Arjana Žitnik – predstavljamo raziskovalne dosežke na področju diskretne matematike in teoretičnega računalništva.

Spletna stran seminarja je na naslovu:

http://wiki.fmf.uni-lj.si/wiki/Seminar_za_diskretno_matematiko.

Seminar se sestaja ob torkih od 10. do 12. ure. V letu 2016 se je zvrstilo 27 sestankov, na katerih je bilo v povprečju 11 poslušalcev.

Barbara Ikica, *Evolutionary dynamics, games and graphs* , 5. 1.,

Tilen Marc, *From oriented matroids to partial cubes*, 19. 1.,

- Katja Berčič**, *A repository of cubic vertex transitive graphs and its companion Sage package*, 2. 2.,
- Tomaž Pisanski**, *Crossing-equivalence of graph embeddings and polyhedral self-assembly*, 23. 2.,
- Martin Pečar**, *Bi-objective shortest path problem - speed-up approaches*, 1. 3.,
- Gašper Fijavž**, *Minimal graphs containing k perfect matchings*, 8. 3.,
- Tomaž Pisanski**, *Operations on Oriented Maps*, 22. 3.,
- Micael Toledo**, *On automorphism group of maniplexes and their symmetry type graphs*, 5. 4.,
- Matjaž Konvalinka**, *Oblika prepletogramov*, 12. 4.,
- Robert Jaycay**, *Generalized Edge-Regular Graphs*, 19. 4.,
- Russ Woodrooffe**, *The Frankl Conjecture for subgroup lattices*, 3. 5.,
- Rögnvaldur G. Möller**, *Graphs and topological groups*, 10. 5.,
- Sergio Cabello**, *Classes of geometric intersection graphs*, 17. 5.,
- Nino Bašić**, *Pentagonal incidence partition of a fullerene*, 24. 5.,
- Tomaž Pisanski**, *Splittable and unsplittable graphs and configurations*, 31. 5.,
- Wacław Marzantowicz**, *A representation of the Reeb Graph as a subcomplex of manifold*, 7. 6.,
- Gunnar Brinkmann**, *Hamiltonian cycles in polyhedra*, 7. 7.,
- Patrick W. Fowler**, *Modelling molecular currents (Theoretical chemistry & experimental mathematics)*, 7. 7.,
- Primož Potočnik**, *Skoraj vsi grafi so povsem asimetrični*, 11. 10.,
- Arjana Žitnik**, *Rotacijske reprezentacije cikličnih kubičnih konfiguracij*, 18. 10.,
- Cergio Cabello**, *Algoritmi za grafe na ploskvah*, 25. 10.,
- Matjaž Konvalinka**, *Bijektivni dokaz Narusejeve formule o kljukah za poševne oblike*, 15. 11.,
- Sara Sabrina Zemljic**, *Posplošeni grafi Sierpinskega*, 22. 11.,
- Tilen Marc**, *Minorji v delnih kockah*, 29. 11.,
- Sandi Klavžar**, *Pakirno kromatično število*, 6. 12.,
- Tomaž Pisanski**, *Kaj smo se naučili ob dvodnevnom obisku predsednika ERC v Sloveniji?*, 13. 12.,
- Matjaž Konvalinka**, *Asimptotska normalnost indeksa maj na standardnih Youngovih tabelah*, 20. 12.

Seminar za osnove matematike in teoretičnega računalništva

Seminar sta vodila Andrej Bauer in Alex Simpson. Obiskovalo ga je 10 do 15 članov. Podatki o seminarju so na: <http://www.fmf.uni-lj.si/si/obvestila/agregator/seminar-osnove/>.

- Egbert Rijke**, *The loop space of the 2-sphere*, 26. 1.,
Willem Fouché, *On infinitesimal stochastic independence*, 28. 1.,
Andrej Bauer, *On self-interpreters for lambda calculi*, 23. 2.,
Matthias Schroeder, *Sequentially locally convex QCB-spaces*, 1. 3.,
Alex Simpson, *Fibrational models for relational parametricity*, 5. 4.,
Igor Konnov, *Model checking of threshold-based fault-tolerant distributed algorithms*, 4. 5.,
Klaus Keimel, *The Cuntz semigroup*, 10. 5.,
Fredrik Nordvall Forsberg, *Applications and theory of higher inductive types*, 17. 5.,
Thomas Streicher, *An effective spectral theorem for bounded self adjoint operators*, 21. 6.,
Alex Simpson, *Relating point-free and algorithmic randomness*, 4. 10.,
Pierre-Marie Pédrot, *The definitional side of the forcing*, 11. 10.,
Jaap van Oosten, *Classical and relative realizability*, 18. 10.,
Matija Pretnar, *Dokazovalni pomočnik Abella*, 8. 11.,
Andrej Bauer, *Instance reducibilities*, 15. 11.,
Peter LeFanu Lumsdaine, *Coherence constructions for models of type theory*, 22. 11.,
David Ellerman, *From abstract objects in mathematics to objectively indefinite states in quantum mechanics*, 25. 11.,
Alex Simpson, *A generic operational meta-theory for algebraic effects*, 13. 12.

Sredin seminar

Seminar za računalniško matematiko je začel svoje delo leta 1971 in poskuša s svojimi temami spremljati dogajanje na področju diskretnje matematike ter računalništva doma in po svetu. Vodja seminarja je Vladimir Batagelj.

Seminar ima svojo spletno stran na naslovu
<http://vladowiki.fmf.uni-lj.si/doku.php?id=vlado:pub:sreda>.

Seminar se sestaja ob sredah ob 18. uri.

V letu 2016 so se zvrstila naslednja predavanja (1257–1271):

- Vladimir Batagelj**, *Opis omrežij v JSONu*, 6. 1.,
Bojan Korenini, *Consistent Laddering technique*, 13. 1.,
Uroš Mesojedec, *Obdelava podatkov v oblaku - JS pristop*, 20. 1.,
Vladimir Batagelj, *Izboljšave mer pomembnosti v omrežjih*, 27. 1.,
Marko Grobelnik, Gregor Leban, *Spremljanje globalnih medijev*, 3. 2.,
Stanislav Južnič, *Profesorji matematike in fizike Nikole Tesle*, 15. 4.,
Vladimir Batagelj, *Programska podpora za delo z "zapletenimi" omrežji*, 5. 10.,
Miro Lozej, *Prevajanje lastnosti, šifriranih z neskladnim šifrantom*, 12. 10.,
Tilen Marc, Lovro Šubelj, *O konveksnosti v kompleksnih omrežjih*, 19. 10.,
Monika Cerinšek, Vladimir Batagelj, *Časovne sredice*, 26. 10.,
Marjan Cugmas, *Generiranje omrežij z izbrano globalno strukturo z uporabo lokalnih podstruktur*, 1. del, 9. 11.,
Marjan Cugmas, *Generiranje omrežij z izbrano globalno strukturo z uporabo lokalnih podstruktur*, 2. del, 16. 11.,
Vladimir Batagelj, *Pajek ima 20 let - 1. del: kopiranje*, 23. 11.,
Vladimir Batagelj, *Kolesarska omrežja*, 30. 11.,
Filip Muki Dobranić, *Parlameter - predstavitev platforme, metodologije in podatkovnih zbirk*, 14. 12.

Seminar za zgodovino matematičnih znanosti

Seminar, ki ga vodi Jurij Kovič, se je v koledarskem letu 2016 sestal 28-krat. Potekal je ob ponedeljkih med 14. in 16. uro, rednih članov je 8, udeleževalo se ga je od 7 do 13 poslušalcev, v povprečju 8.

Obravnavali smo naslednje teme iz zgodovine svetovne in slovenske matematike:

- Milan Hladnik**, *Profesor Ivan Vidav, Pregled življenja in dela. Zrela leta.*, 5. del, 4. 1.,
Nada Razpet, *Vinzenzo Riccati in dve igri*, 11. 1.,
Milan Hladnik, *Tlakovanje pravokotnikov in ravnine s kvadrati*, 18. 1.,
Jurij Kovič, *Evklid in Elementi*, 22. 2.,
Jurij Kovič, *Problem nesoizmerljivosti in teorija razmerij v starogrški matematiki*, 29. 2.,
Milan Hladnik, *Matematiki, fiziki in astronomi na Slovenskem v minulih obdobjih. Druga polovica 18. stoletja*, 4. del, 7. 3.,

Marko in Nada Razpet, *Izgubljeno poglavje v zgodovini krožne konstante*, 14. 3.,

Nada Razpet, *Iracionalna števila*, 21. 3.,

Milan Hladnik, *Matematiki, fiziki in astronomi na Slovenskem v minulih obdobjih. Prva polovica 19. stoletja*, 5. del, 4. 4.,

Aleksander Simonič, *Kratka zgodovina sferne trigonometrije*, 11. 4.,

Jurij Kovič, *O številih in igrah*, 18. 4.,

Jurij Kovič, *Vozli*, 25. 4.,

Jurij Kovič, *Uporaba kompleksnih števil v geometriji*, 9. 5.,

Milan Hladnik, *Matematiki, fiziki in astronomi na Slovenskem v minulih obdobjih. Druga polovica 19. stoletja - fiziki*, 6. del, 16. 5.,

Marko Razpet, *Diofant iz Aleksandrije*, 23. 5.,

Milan Hladnik, *Matematiki, fiziki in astronomi na Slovenskem v minulih obdobjih. Druga polovica 19. stoletja - matematiki*, 7. del, 30. 5.,

Marko Razpet, *Doktorska disertacija Jacquesa Sesiana*, 6. 6.,

Marko Razpet, *Ob 125-letnici smrti Édouarda Lucasa*, 3. 10.,

Izidor Hafner, *James Gregory (1636-1675) Življenje in delo*, 10. 10.,

Milan Hladnik, *Jacques Hadamarad (8.12.1865-17.10.1963). Osebne tragedije in matematična odličnost*, 17. 10.,

Jurij Kovič, *Godfrey Harold Hardy (1877-1947). Življenje in delo*, 24. 10.,

Aleksander Simonič, *Riemannova funkcija zeta. Riemannov članek (1859)*, 1. del, 7. 11.,

Jurij Kovič, *Gottfried Wilhelm Leibniz (1646-1716). Leibnizeva pariška leta (1672-1676)*, 1. del, 14. 11.,

Nada Razpet, *Francesco Giacomo Triconi in njegovi sodobniki*, 21. 11.,

Milan Hladnik, *Arhimed, matematični genij antike. Njegova matematična dela, prevodi in kasnejša odkritja*, 28. 11.,

Vito Lampret, *James (Jacobus) Stirling (1692-1770)*, 28. 11.,

Marko Razpet, *Peter Ludwig Meidell Sylow in njegovi izreki*, 12. 12.,

Nada Razpet, *Helmut Wielandt in njegovi sodobniki*, 19. 12.

Dogajanje na seminarju, to je naslove, predavatelje, datume in kraj izvedbe lahko spremljate na spletni strani http://wiki.fmf.uni-lj.si/wiki/Seminar_za_zgodovino_matematičnih_znanosti.

MATEMATIČNI KOLOKVIJI

Matematični kolokviji in **Javna predavanja DMFA** na Fakulteti za matematiko in fiziko Univerze v Ljubljani so ob četrtkih ob 18:15 v predavalnici 2.02 na Jadranski 21 v Ljubljani.

Napovedi kolokvijev in arhiv s povzetki so na voljo na spletnem naslovu:

<http://wiki.fmf.uni-lj.si/wiki/MatematichniKolokviji>

V letu 2016 so se zvrstila naslednja predavanja:

24. marec 2016

Evgeny A. Poletsky

Syracuse University, Syracuse, NY, ZDA

HOMOTOPIC PROPERTIES OF HOLOMORPHIC MAPPINGS

14. april 2016

Bor Plestenjak

Univerza v Ljubljani, Slovenija

DETERMINANTNE UPODOBITEV POLINOMOV DVEH SPREMENLJIVK

19. maj 2016

Aljoša Volčič

University of Calabria, Italija

HAMMER'S X-RAY PROBLEM

8. junij 2016

Wacław Marzantowicz

UAM, Poznań, Poljska

BOURGIN-YANG THEOREMS FOR THE p -TORAL GROUPS

5. julij 2016

Alexander Volberg

Michigan State University, ZDA

END POINT ESTIMATES AND MONGE-AMPÈRE EQUATION WITH DRIFTS

20. september 2016

Friedrich Hegenbarth

Università degli Studi di Milano, Italija

GENERALIZED MANIFOLDS – SOME ASPECTS

29. september 2016

Yakov Eliashberg

Stanford University, ZDA

SYMPLECTIC TOPOLOGY: FROM POINCARÉ TO ARNOLD AND GROMOV,
AND BEYOND

25. oktober 2016

Alex Simpson

Univerza v Ljubljani, Slovenija

PROBABILITY SHEAVES

1. december 2016

Jean-Pierre Bourguignon

CNRS – IHÉS, Francija

GEOMETRY AND PHYSICS: CROSS-FERTILIZATION AND MISSED
OPPORTUNITIES

MATEMATIČNA KNJIŽNICA

Z BIBLIOGRAFSKIM ODDELKOM

V letu 2016 je v knjižnico tekoče prihajalo 130 naslovov matematičnih revij, od tega smo v zameno prejeli zvezke iz 36 naslovov in kot dar 12 naslovov. Na ta način smo pridobili 293 enot.

Pri knjigah smo pridobili 281 novih naslovov (od tega 10 doktoratov, 39 magisterijev in 72 diplomskega del oz. nalog ter zaključnih del študentov 1. stopnje Bolonjskega študija). Skupaj smo pridobili 305 knjižnih enot (96 iz nakupa, 84 kot dar, ostalo so obvezni izvodi).

Stanje 31. 12. 2016 je bilo naslednje: 60.103 knjižnih enot (36.859 knjig, 3.048 diplom, magisterijev in disertacij ter 19.977 vezanih letnikov revij) in 768 enot neknjižnega gradiva (rokopisna in slikovna gradiva, stari mikrofisi, računalniško gradivo in drobni tisk).

V letu 2016 smo zaposlenim in študentom na Univerzi v Ljubljani omogočili elektronski dostop do revij, ki jih izdajata Ameriško in Evropsko matematično društvo, SIAM, Matematični inštitut Poljske akademije znanosti in še nekaterih drugih posameznih revij, ki jih naša knjižnica naroča. V okviru konzorcijev, v katerih sodelujejo fakultete Univerze v Ljubljani z drugimi slovenskimi univerzami, pa je bil omogočen še elektronski dostop do revij v bazah SpringerLink, ScienceDirect in Wiley Interscience. Poleg tega je bil mogoč tudi dostop do starih člankov, predvsem ameriških znanstvenih revij, v arhivu JSTOR.

V letu 2016 smo v sistem COBISS vnesli 338 zapisov monografij in zbornikov ter 1.106 bibliografskih zapisov člankov in recenzij. Vso literaturo, ki jo hranimo v knjižnici lahko najdete preko sistema COBISS/OPAC.

V letu 2016 je imela naša knjižnica 1.169 aktivnih članov. Obiskov v knjižnici je bilo 6.457, preko sistema COBISS/OPAC pa še 9.972. Za potrebe izposoje smo opravili 16.735 transakcij. Med obiskovalci knjižnice je še vedno največ študentov, predvsem tistih, ki študirajo na naši fakulteti. Preko medknjižnične izposoje smo preko CTK v glavnem iz tujine naročili 22 dokumentov. Iz drugih knjižnic pa je k nam prišlo 42 zahtevkov za fotokopije člankov oz. izposojo knjig, ki jih hranimo v Matematični knjižnici.

V letu 2016 so konzorcij za nakup matematične baze podatkov *MathSci-Net* (<http://www.ams.org/mathscinet/>) sestavlja tri slovenske univerze,

za Univerzo v Ljubljani Matematična knjižnica, za Univerzo na Primorskem Knjižnica za tehniko, medicino in naravoslovje in Univerza v Novi Gorici. Poleg te baze podatkov lahko za pregledovanje matematične literature uporabljate tudi bazo podatkov *Zentralblatt MATH* (<http://www.zentralblatt-math.org/zmath/en/>). Podatke o citiranosti (*Web of Science*) najdete na naslovu <http://apps.webofknowledge.com/>. Faktorje vpliva za posamezne revije lahko najdete v COBISS/OPAC (katalog ali specializirane baze podatkov). Kot že nekaj let, smo tudi v letu 2016 v knjižnici pripravili tudi po abecedi oz. velikosti faktorja vpliva urejeno verzijo seznama revij s faktorjem vpliva 2015 za 17 kategorij.

Knjižnico financirata Oddelek za matematiko Fakultete za matematiko in fiziko ter Inštitut za matematiko, fiziko in mehaniko. Poleg tega pa del sredstev za nakup tujih znanstvenih revij prispeva tudi ARRS.

Knjižnica je odprta za študente od ponedeljka do petka od 7. do 15. ure, za vse člane IMFM in FMF pa 24 ur na dan, vse dni.

Maja Klavžar

ARS MATHEMATICA CONTEMPORANEA

Mednarodna matematična revija *Ars Mathematica Contemporanea* (AMC) je v letu 2016 objavila svoj 10. in 11. letnik v štirih številkah.

Skupaj je bilo v obeh letnikih objavljenih 61 člankov. Od tega je bilo 14 člankov slovenskih avtorjev oziroma soavtorjev.

Razširjeni uredniški odbor AMC sestavlja prek 60, večinoma tujih matematikov. Posebnost revije, ki zaenkrat še izhaja v papirnati obliki (ISSN 1855-3966), je tudi ta, da so vsi objavljeni članki v elektronski obliki (ISSN 1855-3966) prosto dostopni na svetovnem spletu.

Revijo indeksirajo naslednje baze podatkov: *Mathematical Reviews*, *Zentralblatt MATH*, *COBISS*, *SCOPUS*, *Science Citation Index-Expanded*, *Web of Science*, *ISI Alerting Service*, *Current Contents/Physical, Chemical & Earth Sciences*.

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- Thomas Connor, Dimitri Leemans,** *Algorithmic enumeration of regular maps*, str. 211,
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Articles

- William L. Kocay,** *One-point extensions in n_3 configurations*, str. 291,
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- David Gajser**, *On convergence of binomial means, and an application to finite Markov chains*, str. 393,
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