The benefits of participating in an ICMS event are wide and varied.

We asked 2013-2018 workshop delegates to give us examples of how participation has impacted their research. Many cited tangible outputs such as papers, follow on workshop, research visits etc. This list provides a snap-shot of papers influenced by research /collaboration inspired at ICMS workshops.

Workshop (2018)	**Pub. Date**	**Papers/Publications**	**Weblink (where available)**
Geometric analysis	2019	Otis Chodosh, Christos Mantoulidis, (2019), Minimal Hypersurfaces with Arbitrarily Large Area, International Mathematics Research Notices, , rnz128,	https://doi.org/10.1093/imrn/rnz128
Collective dynamics and self-organization in biological sciences		L Chen, K. J Painter, C. Surulescu, A. Zhigun, (2018) Mathematical models for cell migration: a nonlocal perspective, Philos. Trans. Royal Soc. B (accepted).	arXiv:1911.05200
		Krasnianski, Maria & Surulescu, Christina & Zhigun, Anna. (2019). Nonlocal and local models for taxis in cell migration: a rigorous limit procedure. .	arXiv:1908.10287
Quasicrystals: pattern formation and aperiodic order	2019	Praveen K. Bommineni, Nydia Roxana Varela-Rosales, Marco Klement, and Michael Engel, (2019), Complex Crystals from Size-Disperse Spheres, Phys. Rev. Lett. 122, 128005	https://doi.org/10.1103/PhysRevLett.122.128005
	2020	Praveen K. Bommineni, Marco Klement, and Michael Engel, (2020),Spontaneous Crystallization in Systems of Binary Hard Sphere Colloids, Phys. Rev. Lett. 124, 218003 – Published 28 May 2020	https://doi.org/10.1209/0295-5075/126/38001
	2019	A. Gemeinhardt, M. Martinsons and M. Schmiedeberg, (2019), Stabilizing quasicrystals composed of patchy colloids by narrowing the patch width, EPL, 126 3 (2019) 38001	–
	2020	Dominic Arold and Michael Schmiedeberg, (2020), Mean field approach of dynamical pattern formation in underdampedactive matter with short-ranged alignment and distant anti-alignmentinteractions, *J. Phys.: Condens. Matter* 32 315403	–
	2020	Arold, D., Schmiedeberg, M., (2020, Active phase field crystal systems with inertial delay and underdamped dynamics. Eur. Phys. J. E 43, 47 (2020).	https://doi.org/10.1140/epje/i2020-11971-x
	2020	Fernique, Thomas & Galanov, Ilya. (2020). Local growth of planar rhombus tilings. Journal of Physics: Conference Series. 1458. 012001.	https://doi.org/10.1088/1742-6596/1458/1/012001

	2019	Nakakura, J., Ziherl, P., Matsuzawa, J. et al. (2019), Metallic-mean quasicrystals as aperiodic approximants of periodic crystals. Nat Commun 10, 4235 (2019).	https://doi.org/10.1038/s41467-019-12147-z
	2020	Michael Kelly, Lorenzo Sadun, (2020), Pattern Equivariant Mass Transport in Aperiodic Tilings and Cohomology, International Mathematics Research Notices, rnz310,	https://doi.org/10.1093/imrn/rnz310
	2020	A. Scacchi, W.R.C. Somerville, D.M.A. Buzza and A.J. Archer, (2020), Quasicrystal formation in binary soft matter mixtures, Phys. Rev. Research 2, 032043®	–
	2019	D.J. Ratliff, A.J. Archer, P. Subramanian and A.M. Rucklidge (2019), Which wave numbers determine the thermodynamic stability of soft matter quasicrystals? , Phys. Rev. Lett. 123, 148004	–
	2019	A.J. Archer, D.J. Ratliff, A.M. Rucklidge and P. Subramanian, (2019), Deriving phase field crystal theory from dynamical density functional theory: consequences of the approximations , Phys. Rev. E 100, 022140	–
Quantum Homogeneous Spaces		Christian Voigt, Robert Yuncken, (2019), The Plancherel formula for complex semisimple quantum groups,	arXiv:1906.02672
		Christian Voigt, Robert Yuncken, (2019), TComplex semisimple quantum groups and representation theory a	arXiv:1705.05661
		Kenny De Commer, Marco Matassa, (2018), Quantum flag manifolds, quantum symmetric spaces and their associated universal K-matrices,	arXiv:1809.08471
		Brzezinski, T. & Szymanski, W. (n.d.) The Quantum Flag Manifold $SU_q(3)/\T^2$ as an Example of a Noncommutative Sphere Bundle. Indiana University Mathematics Journal	https://arxiv.org/abs/1906.04083
		Brzezinski, T. & Szymański, W. (n.d.) An algebraic framework for noncommutative bundles with homogeneous fibres. Algebra and Number Theory	https://cronfa.swan.ac.uk/Record/cronfa54834
Thermodynamic formalism in dynamical systems	2020	K Thomsen, (2020), Phase transition in the CAR algebra, Advances in Mathematics, Volume 372, 107312,	https://www.sciencedirect.com/science/article/pii/S0001870820303388
		Godofredo Iommi, Mike Todd, Anibal Velozo, (2019), Escape of entropy for countable Markov shifts :	arXiv:1908.107
		Kenneth J. Falconer, Jonathan M. Fraser, Lawrence D. Lee, (2020) Lq-spectra of measures on planar non-conformal attractor	arXiv:2005.09361
Stochastic networks		Seva Shneer, Alexander Stolya, (2019), Discrete-time TASEP with holdback	arXiv:1905.03860
		Pablo A. Ferrari, Leonardo T. Rolla, (2020), Slow-to-Start Traffic Model: Condensation, Saturation and Scaling Limits	arXiv:2001.05796
		Joong-Ho Won, Hua Zhou, and Kenneth Lange. (2018) Orthogonal trace-sum maximization: applications, local algorithms, and global optimality,	https://arxiv.org/abs/1811.03521

Computational strategies for large-scale statistical data analysis	2020	J Day, H Zhou. (2020) OnlineStats.jl: A Julia package for statistics on data streams, Journal of Open Source Software, 5(46):1816.	–
	2019	K Keys, H Zhou, K Lange. (2019) Proximal distance algorithms: theory and practice, Journal of Machine Learning Research, 20(66):1-38.	–
	2020	W Hu, W Shen, H Zhou, and D Kong. (2020) Matrix linear discriminant analysis, Technometrics, 62(2):196-205.	–
Resonances of complex dynamics		Daniel A. Nicks, David J. Sixsmith, (2019), Which sequences are orbits?	https://arxiv.org/abs/1907.11006
		Davoud Cheraghi, Alexandre DeZotti, Fei Yang, (2020), Dimension paradox of irrationally indifferent attractors	arXiv:2003.12340
Stochastic models of evolving populations: from bacteria to cancer		Jasmine Foo, Kevin Leder, Jason Schweinsberg, (2020), Mutation timing in a spatial model of evolution,	arXiv:2001.01175
	2020	Dániel Grajzel, Imre Derényi, Gergely J. Szöllősi, (2020), A compartment size-dependent selective threshold limits mutation accumulation in hierarchical tissues, Proceedings of the National Academy of Sciences , 117 (3) 1606-1611;	https://doi.org/10.1073/pnas.1913104117
	2020	Das, S. G., Direito, S. O. L., Waclaw, B., Allen, R. J., Krug, J, (2020)m Predictable properties of fitness landscapes induced by adaptational tradeoffs, eLife 2020;9:e55155	https://doi.org/10.7554/eLife.55155
		Jasmine Foo, Kevin Leder, Jason Schweinsberg, (2020), Mutation timing in a spatial model of evolution, - accepted for publication in Stochastic Processes and their Applications.	https://arxiv.org/abs/2001.01175
Particle based methods in materials science	2019	King C. Lai and James W. Evans, (2019), Reshaping and sintering of 3D fcc metal nanoclusters: Stochastic atomistic modeling with realistic surface diffusion kinetics, Phys. Rev. Materials 3, 026001 –	https://journals.aps.org/prmaterials/abstract/10.1103/PhysRevMaterials.3.026001
	2019	King C. Lai and James W. Evans, (2019), Complex oscillatory decrease with size in diffusivity of {100}-epitaxially supported 3D fcc metal nanoclusters, Nanoscale, 2019,11, 17506-17516	https://pubs.rsc.org/en/content/articlehtml/2019/nr/c9nr05845a
	2020	Chi-Jen Wang, Da-Jiang Liu, and James W. Evans, (2020) Extended families of critical and stationary droplets for nonequilibrium phase transitions in spatially discrete bistable systems, Phys. Rev. E 101, 022803	–
	2019	U. Thiele, T. Frohoff-Hülsmann, S. Engelnkemper, E. Knobloch and A.J. Archer, (2019), First order phase transitions and the thermodynamic limit, New J. Phys. 21, 123021	https://iopscience.iop.org/article/10.1088/1367-2630/ab5caf
	2019	A.J. Archer, D.J. Ratliff, A.M. Rucklidge and P. Subramanian, (2019), Deriving phase field crystal theory from dynamical density functional theory: consequences of the approximations Phys. Rev. E 100, 022140	https://journals.aps.org/pre/abstract/10.1103/PhysRevE.100.022140

	2019	Salvalaglio, M., Voigt, A. & Elder, K.R., (2019), Closing the gap between atomic-scale lattice deformations and continuum elasticity. npj Comput Mater 5, 48 .	https://doi.org/10.1038/s41524-019-0185-0
	2020	MarcoSalvalaglio, LuizaAngheluta, Zhi-Feng, Huang, Axel Voigt, Ken R.Elder, Jorge Viñals, A coarse-grained phase-field crystal model of plastic motion, (2020), Journal of Mechanics and Physics of Solids 137, 103856	https://doi.org/10.1016/j.jmps.2019.103856
		Marco Salvalaglio, Axel Voigt, Ken R. Elder, (2019), Closing the gap between atomic-scale lattice deformations and continuum elasticity.	arXiv:1808.05190
Gradient flows: challenges and new directions		José A. Carrillo, Bertram Düring, Lisa Maria Kreusser, Carola-Bibiane Schönlieb, (2019), Stability analysis of line patterns of an anisotropic interaction model	arXiv:1806.04966
		Jan Haskovec, Lisa Maria Kreusser, Peter Markowich, (2019), Rigorous Continuum Limit for the Discrete Network Formation Problem	arXiv:1808.01526
		Jan Haskovec, Henrik Jönsson, Lisa Maria Kreusser, Peter Markowich, (2019), Auxin transport model for leaf venation	arXiv:1901.03244
		José A. Carrillo, Bertram Düring, Lisa Maria Kreusser, Carola-Bibiane Schönlieb (2019), Equilibria of an anisotropic nonlocal interaction equation: Analysis and numerics	arXiv:1912.09337
		Lisa Maria Kreusser, Marie-Therese Wolfram, (2020), On anisotropic diffusion equations for label propagation	arXiv:2007.12516
	2019	JD Benamou, G Carlier, S Di Marino, L Nenna, (2019), An entropy minimization approach to second-order variational mean-field games, Mathematical Models and Methods in Applied Sciences 29 (08), 1553-1583	https://www.worldscientific.com/doi/10.1142/S0218202519500283
		Mark A. Peletier, Riccarda Rossi, Giuseppe Savaré, Oliver Tse, (2020), Jump processes as Generalized Gradient Flows,	https://arxiv.org/abs/2006.10624
		Giulia Luise, Giuseppe Savaré, (2019), Jump processes as Generalized Gradient Flows	https://arxiv.org/abs/1904.09825
		Jan Maas, Alexander Mielke (2020), Modeling of chemical reaction systems with detailed balance using gradient structures	arXiv:2004.02831
From permutation groups to model theory		Pierre Simon, (2018), On omega-categorical structures with few finite substructures	arXiv:2004.02831
		Samuel Braunfeld, (2020), Monadic stability and growth rates of ω-categorical structures	arxiv.org/abs/1910.04380
		A. Ivanov, (2019), Continuous theory of operator expansions of finite dimensional Hilbert spaces, continuous structures of quantum circuits and decidability	arxiv.org/abs/1805.03070
		Aranda, A.,Laflamme, C.,Soukup,D, and Woodrow R, (2020), A universal partition result for infinite ${K}_n$-free and related graphs, Discrete Math, accepted subject to revisions	–

		G. Hahn, M. Pouzet and R. Woodrow, (2020), Siblings of countable cographs, submitted to the Special Issue of the Journal of Multiple-Valued Logic and Soft Computing dedicated to Ivo G. Rosenberg	https://arxiv.org/pdf/2004.12457.pdf
		C. Laflamme, M. Pouzet, N. Sauer and R. Woodrow, (2020), The poset of copies for automorphism groups of countable relational structures, Special Issue of the Journal of Multiple-Valued Logic and Soft Computing dedicated to Ivo G. Rosenberg (accepted with minor revisions)	_
Constructions and obstructions in birational geometry		Lev A. Borisov, Sai-Kee Yeung, (2020), Explicit equations of the Cartwright-Steger surface	arXiv:1804.00737
		Evgeny Shinder, with an appendix by Claire Voisin, (2019), Variation of Stable Birational Types of Hypersurfaces	https://arxiv.org/abs/1903.02111
		Francesco Zucconi (2020), The rationality of the moduli space of two-pointed ineffective spin hyperelliptic curves	arXiv:2008.02549
		Nicolas Addington, Benjamin Antieau, Sarah Frei, Katrina Honigs, (2019), Rational points and derived equivalence	arXiv:1906.02261

Workshop (2017)	**Pub. Date**	**Papers/Publications**	_
Applied and computational complex analysis	2019	Rotating Equilibria of Vortex Sheets,Bartosz Protas, Takashi Sakajo Physica D Vol 403, 132286,	https://doi.org.uk/10.1016/j.physd.2019.132286
		Bartosz Protas, (2019) Stability of Confined Vortex Sheets	arXiv:1907.10769
	2019	Bartosz Protas (2019), Linear stability of inviscid vortex rings to axisymmetric perturbations, Journal of Fluid Mechanics, Vol 874, 1115-1146	_
Braids in algebra, geometry and topology	2018	Mapping class groups of covers with boundary and braid group embeddings, Tyrone Ghaswala, Alan McLeay , Algebr. Geom. Topol. Vol 20 (2020) pgs 239-278	https://doi.org/10.2140/agt.2020.20.239
	2017	Eriko Hironaka, Sarah Koch, (2017), A disconnected deformation space of rational maps, AIMS, 2017, 11: 409-423	_
	2019	Eriko Hironaka, (2019), The augmented deformation space of rational maps, Contemporay Mathematics, Volume 742,2020	https://doi.org/10.1090/conm/742/14940
	2019		https://doi.org/10.1090/jams/927

		Brendle, T. E. and Margalit, D. (2019) Normal subgroups of mapping class groups and the metaconjecture of Ivanov. Journal of the American Mathematical Society, 32, pp. 1009-1070. doi: 1	
Learning graphical models in high dimensional settings	2018	M. Scutari, (2017), Dirichlet Bayesian Network Scores and the Maximum Relative Entropy Principle., Journal of Machine Learning Research (73, Proceedings Track, AMBN 2017), 8-20; Behaviormetrika, 45(2), 337-362 (Extended version)	arXiv:1708.00689v5
	2017	Milan Studeny, James Cussens (2017), Towards using the chordal graph polytope in learning decomposable models International Journal of Approximate Reasoning Vol 88, September 2017, Pgs 259-281	https://doi.org/10.1016/j.ijar.2017.06.001
	2019	Stanghellini E., Doretti M, (2019), On marginal and conditional parameters in logistic regression models , Biometrika, Volume 106, Issue 3, Pages 732–739	https://doi.org/10.1093/biomet/asz019
	2019	Doretti M, Geneletti S, Stanghellini E., Missing Data: A Unified Taxonomy Guided by Conditional Independence, International Statistical Review, . ISSN 0306-7734	https://doi.org/10.1111/insr.12242
	2017	James Cussens, David Haws, Milan Studený (2017) Polyhedral aspects of score equivalence in Bayesian network structure learning, M. Math. Program. (2017) 164: 285.	https://doi.org/10.1007/s10107-016-1087-2
		Marco Doretti, Martina Raggi, Elena Stanghellini, (2018) Exact parametric causal mediation analysis for non-rare binary outcomes with binary mediators	arXiv:1811.00439
	2019	Gwenaël G. R. Leday, Sylvia Richardson , (2019) Fast Bayesian inference in large Gaussian graphical models, Biometrics, Volume 75, Issue 4, Pages 1288-1298	https://doi.org/10.1111/biom.13064
Mathematics for measurement	2018	Stéphane Chrétien, (2018) A note on computing the smallest conic singular value, Journal of Computational and Applied Mathematics, Vol 340, 1 October 2018, Pgs 221-230,	https://www.sciencedirect.com/science/article/pii/S0377042718301146
	2020	A. R. Davies and R. J. Douglas, A kernel approach to deconvolution of the complex modulus in linear viscoelasticity, Inverse Problems Vol36 015001,	https://iopscience.iop.org/article/10.1088/1361-6420/ab2944
New mathematics	2019	L. Borcea, J. Garnier, K. Solna,(2019), Wave propagation and imaging in moving random media, SIAM Journal on Multiscale Modeling and Simulation, Vol 17, 31-67	–

for a safer world: wave propagation in heterogeneous materials	2020	James Cowley, Anthony J. Mulholland, Anthony Gachagan, (2020), A modified Rayleigh-Plesset equation for a liquid-crystalline shelled microbubble, IJMER, Vol 10, Issue2, 25	https://doi.org/10.1101/606632
		J. Garnier and K. Solna, (2018), Non-invasive imaging through random media. Non-invasive imaging through random media	arXiv:1802.07883
Nonlinear PDEs, stochastic control and filtering: new methods and applications	2019	Davar Khoshnevisan & Robert C. Dalang and Tusheng Zhang, (2019), Global solutions to reaction-diffusion equations with super-linear drift and multiplicative noise. The Annals of Probability, Vol. 47(1), 519-559	_
	2020	Barbu, V., Röckner, M. (2020), Uniqueness for nonlinear Fokker–Planck equations and weak uniqueness for McKean–Vlasov SDEs. Stoch PDE: Anal Comp	https://doi.org/10.1007/s40072-020-00181-8
New directions in a higher infinite		Jörg Brendle, Lorenz Halbeisen, Lukas Daniel Klausner, Marc Lischka, Saharon Shelah (2018), Halfway New Cardinal Characteristics	arXiv:1808.0244
Linking noncommutative rings and algebraic geometry	2019	Daniel Chan, Adam Nyman, (2019), A repesentation theoretic study of noncommutative symmetric algebras, Edinburgh Mathematical Society. Proceedings of the Edinburgh Mathematical Society; Cambridge Vol. 62, Iss. 3: 875-887.	https://doi.org/10.1017/S0013091518000871
Applications of operator algebras: order, disorder and symmetry	2019	Petter Nyland, Eduard Ortega, (2019), Topological Full Groups of Ample Groupoids with Applications to Graph Algebras, International Journal of Mathematics , 66 pages Vol. 30, No. 04	arXiv:1806.11087
	2018	Silvia Sellán, Herng Yi Cheng, Yuming Ma, Mitchell Dembowski, Alec Jacobson, Solid Geometry Processing on Deconstructed Domains, Computer Graphics Forum, Volume38, Issue1, Pages 564-579	https://onlinelibrary.wiley.com/doi/full/10.1111/cgf.13592
Positivity in algebraic and complex geometry	2018	Daniel Greb, Matei Toma (2020), Moduli spaces of sheaves that are semistable with respect to a Kähler polarisation Journal de l'École polytechnique Mathématiques Vol7 , 233-261	https://doi.org/10.5802/jep.116
	2019	Andreas Höring, Thomas Peternell, (2019), Algebraic integrability of foliations with numerically trivial canonical bundle, T. Invent. math. 216: 395	https://link.springer.com/article/10.1007/s00222-018-00853-2
		Ana-Maria Castravet, Jenia Tevelev, (2020) Derived category of moduli of pointed curves -- II	arXiv:1708.06340

	2018	Brian Lehmann, John Christian Ottem, (2018), Positivity of the diagonal, Advances in Mathematics, Volume 335, 7 September, Pages 664-695	https://doi.org/10.1016/j.aim.2018.07.002
		Catriona Maclean, (2017), Classifying approximable algebras	arXiv:1709.06945
		Aeran Fleming, (2019), Kähler packings of projective complex manifold	arXiv:1905.03140
Probabilistic perspectives in nonlinear PDEs	2018	F. Flandoli (2018), Weak vorticity formulation of 2D Euler equations with white noise initial condition, Comm. Part. Diff. Eq. 43 1102-1149	–
		Herbert Koch, Xian Liao, (2019), Conserved energies for the one dimensional Gross-Pitaevskii equation	arXiv:1801.08386
		Trishen S. Gunaratnam, Tadahiro Oh, Nikolay Tzvetkov, Hendrik Weber, (2018), Quasi-invariant Gaussian measures for the nonlinear wave equation in three dimensions	arXiv:1808.03158
		Oh, Sosoe, Tolomeo, (2019), Optimal integrability threshold for Gibbs measures associated with focusing NLS on the torus. In preparation.	–
	2018	Oh, Tadahiro; Sosoe, Philippe; Tzvetkov, Nikolayn. (2018), An optimal regularity result on the quasi-invariant Gaussian measures for the cubic fourth order nonlinear Schrödinger equation. J. Éc. polytech. MathVol 5 (2018), 793–841	–

Workshop (2016)	**Pub. Date**	**Papers/Publications**	**Weblink (where available)**
Dynamical networks and network dynamics	2018	Moore, S., Morters, P., & Rogers, T. (2018). A Re-entrant Phase Transition in the Survival of Secondary Infections on Networks. *Journal of Statistical Physics*, *171*(6), 1122-1135.	https://doi.org/10.1007/s10955-018-2050-9
Multiscale methods for stochastic dynamical systems in biology	2019	Hye-Won Kang and Radek Erban , (2019), Multiscale Stochastic Reaction–Diffusion Algorithms Combining Markov Chain Models with Stochastic Partial Differential Equations, Bulletin of Mathematical Biology (2019) 81:3185–3213	https://doi.org/10.1007/s11538-019-00613-0
	2019	Bin Xu, Hye-Won Kang and Alexandra Jilkine, (2019), Comparison of Deterministic and Stochastic Regime in a Model for Cdc42 Oscillations in Fission Yeast, Bulletin of Mathematical Biology volume 81, pages1268–1302	https://doi.org/10.1007/s11538-019-00573-5

	2019	Hye-Won Kang, Radek Erban, (2019), Multiscale Stochastic Reaction–Diffusion Algorithms Combining Markov Chain Models with Stochastic Partial Differential Equations, Bulletin of Mathematical Biology volume 81, pages3185–3213	https://doi.org/10.1007/s11538-019-00613-0
	2018	Tomislav Plesa, Konstantinos Zygalakis, David Anderson and Radek Erban, (2018), Noise control for molecular computing , Journal of the Royal Society Interface, Volume 15, Number 144, 20180199	_
	2017	Tomislav Plesa, Tomas Vejchodský and Radek Erban In: Holcman D. (eds), (2017), Test Models for Statistical Inference: Two-Dimensional Reaction Systems Displaying Limit Cycle Bifurcations and Bistability, Stochastic Processes, Multiscale Modeling, and Numerical Methods for Computational Cellular Biology. Springer, Cham	_
Nonparametric statistical inference under shape constraints	2018	Kim, A. K. H., Guntuboyina, A. and Samworth, R. J., (2018), Adaptation in log-concave density estimation, The Annals of Statistics Vol. 46, No. 5, 2279–2306	https://doi.org/10.1214/17-AOS1619
	2018	Banerjee, M. and Samworth, R. J, (2018), A conversation with Jon Wellner, Statist. Sci. Volume 33, Number 4, 633-651.	https://doi.org/10.1214/18-STS666
	2019	Han, Q., Wang, T., Chatterjee, S. and Samworth, R. J. , (2019), Isotonic regression in general dimensions, Ann. Statist. Volume 47, Number 5, 2440-2471.	_
		Oliver Y. Feng, Adityanand Guntuboyina, Arlene K. H. Kim, Richard J. Samworth (2018), Adaptation in multivariate log-concave density estimation	arXiv:1812.11634
		Richard J. Samworth, (2017), Recent progress in log-concave density estimation.	arXiv:1709.03154
	2020	Yagi, D., Chen, Y., Johnson, A.L. and Kuosmanen, T, (2020), Shape constrained kernel-weighted least squares: estimating production functions for Chilean manufacturing industries, Journal of Business and Economic Statistics Volume38 Issue number1	_
Complex networks and		Nic Freeman, Jonathan Jordan, (2020), Extensive Condensation in a model of Preferential Attachment with Fitnesses	arXiv:1812.0694

emerging applications			
Energy Management: Flexibility, Risk and Optimisation	2017	R. Moreno, A. Street, J. M. Arroyo, P. Mancarella, (2017), Planning low-carbon electricity systems under uncertainty considering operational flexibility and smart grid technologies, Philosophical Transactions of the Royal Society A – Mathematical, Physical and Engineering Sciences Vol. 375, article no. 20160305, pp. 1-29.	–
Geometric rigidity theory and applications	2020	D.Kitson, R.H. Levene (2020). Graph rigidity for unitarily invariant matrix norms, Journal of Mathematical Analysis and Applications, Volume 491, Issue 2, 124353	https://doi.org/10.1016/j.jmaa.2020.124353
	2019	Yaser Eftekharia, Bill Jackson, Anthony Nixon, Bernd Schulzec, Shin-ichiTanigawade, Walter Whiteley, (2019), Point-hyperplane frameworks, slider joints, and rigidity preserving transformations, Journal of Combinatorial Theory, Series B, Volume 135, Pages 44-74	https://doi.org/10.1016/j.jctb.2018.07.008
	2018	J. Cruickshank, D. Kitson, S. C. Power, (2018), The generic minimal rigidity of a partially triangulated torus, Proceeding of the London Mathematical Society, Volume118, Issue5, Pages 1277-1304	https://doi.org/10.1112/plms.12215
		Oleg Karpenkov, Christian Müller, (2019), Geometric criteria for realizability of tensegrities in higher dimensions	arXiv:1907.02830
		Gaiane Panina, (2019), A universality theorem for stressable graphs in the plane	arXiv:1902.07212
	2017	Ciprian S. Borcea, Ileana Streinu (2017), New principles for auxetic periodic design, SIAM J. Appl. Algebra Geometry, 1(1), 442–458. (17 pages)	https://doi.org/10.1137/16M1088259
	2018	Ciprian S Borcea, Ileana Streinu, (2018), Periodic Auxetics: Structure and Design, The Quarterly Journal of Mechanics and Applied Mathematics, Volume 71, Issue 2, , Pages 125–138,	https://doi.org/10.1093/qjmam/hbx028
Computation in geometric and combinatorial group theory	2019	Ciobanu, Elder, (2019) Solutions sets to systems of equations in hyperbolic groups are EDT0L in PSPACE, Leibniz International Proceedings in Informatics, LIPIcs, 132	http://hdl.handle.net/10453/133072
	2020	Derek Holt,Stephen Linton, Max Neunhöffer, Richard Parkerd, Markus Pfeiffere, Colva M.Roney-Dougal, (2020) Polynomial-time proofs that groups are hyperbolic, Journal of Symbolic Computation - Available online Aug 2020	https://doi.org/10.1016/j.jsc.2020.08.003

		James Howie, Alexander Konovalov, (2016)Generalised triangle groups of type (2,3,2) with no cyclic essential representations	arXiv:1612.00242
		S.Hermiller, D.Holt, T.Susse, S.Rees, (2020) Automaticity for graphs of groups - to appear in Groups, Geometry and Dynamics	arXiv:1905.05943
	2018	Leary, I.J.(2018), Subgroups of almost finitely presented groups. Math. Ann. 372, 1383–1391 (2018).	https://doi.org/10.1007/s00208-018-1689-5
Trapped waves and wave radiation in fluid mechanics	2018	Gao, T., Milewski, P.A., Papageorgiou, D.T. et al. (2018), Dynamics of fully nonlinear capillary–gravity solitary waves under normal electric fields, J Eng Math 108, 107–122	https://doi.org/10.1007/s10665-017-9912-z
Symplectic geometry and topology	2020	Miguel Abreu, Leonardo Macarini, (2020), On the Mean Euler Characteristic of Gorenstein Toric Contact Manifolds, International Mathematics Research Notices, Volume 2020, Issue 14, Pages 4465–4495,	https://doi.org/10.1093/imrn/rny151
		Sílvia Anjos, Sinan Eden, (2018), The homotopy Lie algebra of symplectomorphism groups of 3-fold blow-ups of (S2×S2,σstd⊕σstd),	arXiv:1702.03572
Metamaterials beyond photonics	2017	C.F. Sieck, A. Alù, M.R. Haberman, (2017), Origins of Willis coupling and acoustic bianisotropy in acoustic metamaterials through source-driven homogenization, Phys. Rev. B, Vol 96, 104303	–
Stochastic models of the spread of disease and information on networks	2017	Leung K.Y., Kretzschmar M., Diekmann O In: Masuda N., Holme P. (eds), (2017), Mean Field at Distance One, Temporal Network Epidemiology. Theoretical Biology. Springer, Singapore	–
	2018	E. Buckingham-Jeffery, T. House and V. Isham., (2018), Gaussian process approximations for fast inference from infectious disease data, Mathematical Biosciences, Vol 301 111-120	–
	2018	Graham Brightwell, Thomas House, Malwina Luczak, (2018), Extinction times in the subcritical stochastic SIS logistic epidemic, J. Math. Biol. Vol 77, 455–493	https://doi.org/10.1007/s00285-018-1210-5
	2018	D. Clancy, (2018), Persistence time of SIS infections in heterogeneous populations and networks, Journal of Mathematical Biology Volume 77, pp 545–570.	–

	2018	D. Clancy, (2018), Precise Estimates of Persistence Time for SIS Infections in Heterogeneous Populations, Bulletin of Mathematical Biology, Volume 80, pp 2871–2896.	–
		David Coupier, Kumarjit Saha, Anish Sarkar, Viet Chi Tran, (2020), The 2d-directed spanning forest converges to the Brownian web	arXiv:1805.0939
	2017	D Aldous, (2017), The SI and SIR Epidemics on General Networks, Probab. Math. Statist., Vol 37, 229 - 234	–

Workshop (2015)	**Pub. Date**	**Papers/Publications**	**Weblink (where available)**
Mathematics, mechanics and physics for tomorrow's materials	2020	Konark Bisht, Yiwei Wang, Apala Majumdar, (2020), Tailored Morphologies in 2D Ferronematic Wells, Phys. Rev. E 101, 022706	arXiv:1907.03833 https://journals.aps.org/pre/abstract/10.1103/PhysRevE.101.022502
	2019	Konark Bisht, Varsha Banerjee, Paul Milewski, and Apala Majumdar, (2019), Magnetic nanoparticles in a nematic channel: A one-dimensional study, Phys. Rev. E 100, 012703	https://journals.aps.org/pre/abstract/10.1103/PhysRevE.100.012703
	2019	Sourav Patranabish, Yiwei Wang, Aloka Sinha, and Apala Majumdar (2019), One-dimensional theoretical analysis of coupling and confinement effects on the cybotactic clusters of bent-core nematic liquid crystals, Phys. Rev. E 99, 012703	https://journals.aps.org/pre/abstract/10.1103/PhysRevE.99.012703
	2017	Giacomo Canevari, Apala Majumdar, and Amy Spicer, (2017), Order Reconstruction for Nematics on Squares and Hexagons: A Landau--de Gennes Study Society for Industrial and Applied Mathematics - ISSN (print): 0036-1399/ISSN (online): 1095-712X	https://epubs.siam.org/doi/10.1137/16M1087990
Computational and multiscale mathematical modelling of cancer growth and spread	2017	Christian Engwar, Christian Stinner, Christina Surulescu, (2017), On a structured multiscale model for acid-mediated tumor invasion: The effects of adhesion and proliferation Mathematical Models and Methods in Applied Sciences	https://doi.org/10.1142/S0218202517400188
	2018	Sandesh Athni Hiremath, Christina Surulescu, Anna Zhigun and Stefanie Sonner, (2018), On a coupled SDE-PDE system modeling acid-mediated tumor invasion, AIMS, Volume 23, Issue 6	https://doi.org/10.3934/dcdsb.2018071

	2016	7 Peter E. Kloeden, Stefanie Sonner, and Christina Surulescu, (2016), A nonlocal sample dependence SDE-PDE system modeling proton dynamics in a tumor, AIMS, Volume 21, Issue	https://doi.org/10.3934/dcdsb.2016045
	2018	Anna Zhigun, Christina Surulescu, Alexander Hunt, (2018), A strongly degenerate diffusion-haptotaxis model of tumour invasion under the go-or-grow dichotomy hypothesis, Mathematical Methods in the Applied Sciences 41(1) Issue 6	https://doi.org/10.1002/mma.4749
	2016	Christian Stinner, Christina Surulescu and Aydar Uatay, (2016), Global existence for a go-or-grow multiscale model for tumor invasion with therapy, Mathematical Models and Methods in Applied Sciences Vol 26 No 11 - ISSN (print): 0218-2025 | ISSN (online): 1793-6314	/10.1142/S021820251640011X
Computational information geometry for image and signal processing		Luigi Montrucchio, Giovanni Pistone (2019), Kantorovich distance on a finite metric space	arXiv:1905.07547
	2018	Luigi Malagò, Luigi Montrucchio & Giovanni Pistone (2018), Wasserstein Riemannian geometry of Gaussian densities, Information Geometry volume 1, pages137–179	https://doi.org/10.1007/s41884-018-0014-4
	2018	Belavkin R.V. (2018) Relation Between the Kantorovich–Wasserstein Metric and the Kullback–Leibler Divergence. In: Ay N., Gibilisco P., Matúš F. (eds) Information Geometry and Its Applications. IGAIA IV 2016. Springer Proceedings in Mathematics & Statistics, vol 252. Springer, Cham.	https://doi.org/10.1007/978-3-319-97798-0_15
	2017	Belavkin R.V. (2015) Asymmetric Topologies on Statistical Manifolds. In: Nielsen F., Barbaresco F. (eds) Geometric Science of Information. GSI 2015. Lecture Notes in Computer Science, vol 9389. Springer, Cham.	https://doi.org/10.1007/978-3-319-25040-3_23
Prospects for causal set quantum gravity	2016	Alessio Belenchia, Dionigi M. T. Benincasa, Stefano Liberati, Francesco Marin, Francesco Marino, Antonello Ortolan, (2016), Tests of Quantum Gravity induced non-locality via opto-mechanical quantum oscillators, Phys. Rev. Lett. 116, 161303 (2016)	arXiv:1512.02083
	2018	J. Abajian, S. Carlip, (2018). Dimensional reduction in manifold-like causal sets Phys. Rev. D 97, 066007	arXiv:1710.00938
	2017	S Carlip (2017), Dimension and Dimensional Reduction in Quantum Gravity, Classical and Quantum Gravity, Volume 34, Number 19	arXiv:1705.05417

	2017	S P Loomis and S Carlip, (2017), Suppression of non-manifold-like sets in the causal set path integral, Classical and Quantum Gravity, Volume 35, Number 2	arXiv:1709.00064
	2018	Mir Emad Aghili, Luca Bombelli, B.B. Pilgrim, (2018), Path length distribution in two-dimensional causal sets Eur. Phys. J. C (2018) 78: 744	https://doi.org/10.1140/epjc/s10052-018-6229-7
	2016	Rafael D. Sorkin, Yasaman K. Yazdi, (2018). Entanglement Entropy in Causal Set Theory, Class. Quantum Grav. 35 074004	https://doi.org/10.1088/1361-6382/aab06f
	2016	Alessio Belenchia, Dionigi M. T. Benincasa, Stefano Liberati, Francesco Marin, Francesco Marino, and Antonello Ortolan, (2016), Testing Quantum Gravity Induced Nonlocality via Optomechanical Quantum Oscillators Phys. Rev. Lett. 116, 161303	https://doi.org/10.1103/PhysRevLett.116.161303
Harmonic Analysis and Partial Differential Equations	2018	Kishimoto, Tsutsumi, (2018), Ill-posedness of the third order NLS equation with Raman scattering term, Mathematical Research Letters, Volume 25, Number 5	https://dx.doi.org/10.4310/MRL.2018.v25.n5.a5
	2017	Gérard, Patrick; Grellier, Sandrine, (2017). The cubic Szegő equation and Hankel operators. Pubished in Astérisque, Print ISBN: 978-2-85629-854-1	–
Topological methods in singularity theory	2018	Jörg Schürmann , Jon Woolf, (2019), Witt groups of abelian categories and perverse sheaves, Ann. K-Th. 4, 621-670	https://doi.org/10.2140/akt.2019.4.621
	2018	Maciej Borodzik and Jennifer Hom, (2018), Involutive Heegaard Floer homology and rational cuspidal curves, Proc. London Math. Soc. (3) 118 (2019) 441–472	https://doi.org/10.1112/plms.12179
Shape optimization		Lashi Bandara, Medet Nursultanov, Julie Rowlett (2018), Eigenvalue asymptotics for weighted Laplace equations on rough Riemannian manifolds with boundary	arXiv:1811.0821

and spectral geometry		Alexandre Girouard, Antoine Henrot, Jean Lagacé (2020), From Steklov to Neumann via homogenisation	arXiv:1906.0963
		Chiara Bianchini, Gisella Croce, Antoine Henrot, (2019), On the quantitative isoperimetric inequality in the plane with the barycentric distance	*arXiv:1904.0275*
	2015	Almut Burchard, Gregory R. Chambers, (2015), Geometric stability of the Coulomb energy, Calculus of Variations and PDE 54(3):3241-3250	https://doi.org/10.1007/s00526-015-0900-8
Minimal free resolutions, Betti numbers, and combinatorics	2019	Hibi, T., Matsuda, K. (2019), Lexsegment Ideals and Their h-Polynomials. Acta Math Vietnam 44, 83–86 (2019).	https://doi.org/10.1007/s40306-018-0297-5
		Takayuki Hibi, Kazunori Matsuda, (2020), Regularity and h-polynomials of binomial edge idals	arXiv:1808.06984
	2019	Takayuki Hibi, Kazunori Matsuda, Adam Van Tuyl (2019), Regularity and h-polynomials of edge ideals, The Electronic Journal of Combinatorics, Volume 26, Issue 1 (2019)	https://doi.org/10.37236/8247
	2018	O'Carroll, Liam; Planas-Vilanova, Francesc , (2018), Minimal free resolutions of lattice ideals of digraphs, Algebraic Combinatorics, Volume 1 (2018) no. 2, pp. 283-326.	https://alco.centre-mersenne.org/item/ALCO_2018__1_2_283_0/
	2019	Truong Cong Quynh, Adel Nailevich Abyzov, Nguyen Thi Thu Ha and Tülay Yildirim, (2019), Modules close to the automorphism-invariant and coinvariant, Journal of Algebra and Its Applications, Vol. 18, No. 12, 1950235	https://www.worldscientific.com/doi/abs/10.1142/S0219498817500189
	2017	R Bouchat, T Brown, (2017), A constructive approach to minimal free resolutions of path ideals of trees, , J. Algebra Comb. Discrete Struct. Appli. 4(1), (2017), 1-13	https://jacodesmath.com/index.php/jacodesmath/article/view/53
	2019	R Bouchat, T Brown (2019), Fibonacci numbers and resolutions of domino ideals, J. Algebra Comb. Discrete Struct. Appli. 6(2), 63-74	https://jacodesmath.com/index.php/jacodesmath/article/view/100
	2017	R Bouchat, T Brown, (2017), Multi-graded Betti numbers of path ideals of trees, , J. Algebra Appl. 16(1), 17500189	https://www.worldscientific.com/doi/abs/10.1142/S0219498817500189

	2019	R Bouchat, T Brown (2019), Minimal free resolutions of 2 × n domino tilings, with T. Brown, J. Algebra Appl. 18(6), 1950118	https://www.worldscientific.com/doi/abs/10.1142/S0219498819501184
Gradient flows: from theory to application	2017	José A. Carrillo, Bertram Düring, Daniel Matthes, David S. McCormick, (2018), A Lagrangian scheme for the solution of nonlinear diffusion equations using moving simplex meshes., (2017), J. Sci. Comput. 75(3), 1463-1499	https://doi.org/10.1007/s10915-017-0594-5
	2016	Jean-David Benamou1, Guillaume Carlier and Maxime Laborde, (2016), An augmented Lagrangian approach to Wasserstein gradient flows and applications, ESAIM: Proc S Volume 54, pg 1	http://www.esaim-proc.org/articles/proc/abs/2016/02/contents/contents.html
	2016	Marco Di Francesco, (2016), Scalar conservation laws seen as gradient flows: known results and new perspectives ESAIM: ProcS - Volume 54, pg 18	https://www.esaim-proc.org/articles/proc/abs/2016/02/proc165402/proc165402.html
	2016	Annalisa Cesaroni, Nicolas Dirr and Matteo Novaga, (2016), Asymptotic speed of propagation for a viscous semilinear parabolic equation **,** ESAIM: ProcS - Volume 54, pg 45	https://doi.org/10.1051/proc/201654045
	2016	Elena Bonetti, Elisabetta Rocca, Riccarda Rossi and Marita Thomas, (2016), A rate-independent gradient system in damage coupled with plasticity via structured strains, ESAIM: ProcS - Volume 54, pg 54	https://doi.org/10.1051/proc/201654054
Mathematics for health and disease	2018	Lopez-Garcia M, Nowicka M, Bendtsen C, Lythe G, Ponnambalam S, Molina-Paris C, (2018), Quantifying phosphorylation timescales of receptor-ligand complexes: a Markovian matrix-analytic approach, Open Biology September Volume 8 Issue 9, Royal Society publishing	https://doi.org/10.1098/rsob.180126
Stochastic systems simulation and control	2018	Kurusch Ebrahimi-Fard, Frédéric Patras, Nikolas Tapia, Lorenzo Zambotti, (2018), Hopf-algebraic Deformations of Products and Wick Polynomials, International Mathematics Research Notices, rny269	https://doi.org/10.1093/imrn/rny269
	2019	F. Patras , K. Ebrahimi-Fard (2019), Shuffle group law : Applications in free probability, Proc. London Math. Soc. Volume 119, Issue3 September Pages 814-840.	https://doi.org/10.1112/plms.12249
	2019	C. Curry, K. Ebrahimi-Fard, F. Patras, (2019) On Non-commutative Stochastic Exponentials. In: Radu F., Kumar K., Berre I., Nordbotten J., Pop I. (eds) Numerical Mathematics and Advanced Applications ENUMATH 2017. Lecture Notes in Computational Science and Engineering, vol 126. Springer, Cham (2019).	

	2018	F. Patras, K Ebrahimi-Fard, (2018), Monotone, free, and boolean cumulants: a shuffle algebra approach, Advances in Mathematics Volume 328, Pages 112-132	https://doi.org/10.1016/j.aim.2018.01.003
	2018	F. Patras, K Ebrahimi-Fard, R. Speicher, (2018), Epsilon-noncrossing partitions and cumulants in free probability, International Mathematics Research Notices, Volume 2018, Issue 23, Pages 7156–7170,	https://doi.org/10.1093/imrn/rnx098

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Gauge theories: quivers, tilings and Calabi-Yau	2016	Amihay Hanany, Vishnu Jejjala, Sanjaye Ramgoolam, Rak-Kyeong Seong, Consistency and Derangements in Brane Tilings, (2016), Journal of Physics A 49 355401	–
	2017	Cremonesi, S., Ferlito, G., Hanany, A. et al. , (2017), Instanton Operators and the Higgs Branch at Infinite Coupling, J. High Energ. Phys. 2017: 42.	https://doi.org/10.1007/JHEP04(2017)042
	2015	Amihay Hanany, Chiung Hwang, Hyungchul Kim, Jaemo Park, Rak-Kyeong Seong, (2015), Hilbert Series for Theories with Aharony Duals,	https://doi.org/10.1007/JHEP11(2015)132
	2015	Cremonesi, Stefano & Hanany, Amihay & Mekareeya, Noppadol & Zaffaroni, Alberto. (2015). T ρ σ (G) theories and their Hilbert series. Journal of High Energy Physics. 2015.	https://doi.org/10.1007/JHEP01(2015)150
	2014	Stefano Cremonesi, Giulia Ferlito, Amihay Hanany, Noppadol Mekareeya, (2014), Coulomb Branch and The Moduli Space of Instantons, J. High Energ. Phys. 103 (2014).	https://link.springer.com/article/10.1007/JHEP12(2014)103
	2014	Bianchi, M., Cremonesi, S., Hanany, A. et al. (2014) Mass-deformed brane tilings. J. High Energ. Phys. 27 (2014).	https://doi.org/10.1007/JHEP10(2014)027
	2015	Franco, S., Ghim, D., Lee, S. et al. (2015). 2d (0,2) quiver gauge theories and D-branes. J. High Energ. Phys., 72	https://doi.org/10.1007/JHEP09(2015)072

Computational methods for statistical mechanics	2015	Green, P.J., Łatuszyński, K., Pereyra, M. et al. (2015). Bayesian computation: a summary of the current state, and samples backwards and forwards. Stat Comput 25, 835–862 (2015).	https://doi.org/10.1007/s11222-015-9574-5
	2017	Kaiser, Jack, Zimmer, Acceleration of convergence to equilibrium in Markov chains by breaking detailed balance, 2017, Journal of Statistical Physics 168.2: 259-287 (2017)	–
	2019	Ansini, Braides, Zimmer,(2019) Minimising movements for oscillating energies: the critical regime, Proc. Roy. Soc. Edinburgh Sect. A, Volume 149, Issue 3, pp. 719-73	https://doi.org/10.1017/prm.2018.46
	2015	Benedict Leimkuhler , Xiaocheng Shang, (2015), On the numerical treatment of dissipative particle dynamics and related systems, Journal of Computational Physics, vol 280, 72–95,	http://dx.doi.org/10.1016/j.jcp.2014.09.008
	2016	Benedict Leimkuhler , Xiaocheng Shang, (2016), Pairwise adaptive thermostats for improved accuracy and stability in dissipative particle dynamics, Journal of Computational Physics, vol 324, 174–193	http://dx.doi.org/10.1016/j.jcp.2016.07.034
Applications of model theory to algebraic, analytic and diophantine geometry		Nick Gill, Pablo Spiga, (2016), Binary permutation groups: alternating and classical groups,	https://arxiv.org/abs/1610.01792
	2015	Franziska Jahnke, Jochen Koenigsmann, (2015), Uniformly defining p-henselian valuations, Annals of Pure and Applied Logic, vol 166, pp. 741-754,	
		Artem Chernikov, Sergei Starchenko, Margaret E. M. Thomas, (2016), Ramsey growth in some NIP structures,	https://arxiv.org/abs/1609.05951
Extremal combinatorics	2015	Jacob Fox, Andrey Grinshpun, Anita Liebenau, Yury Person, Tibor Szabo, (2015) On the minimum degree of minimal Ramsey graphs for multiple colours,	https://arxiv.org/abs/1502.02881
	2015	Bukh, Boris & Conlon, David. (2015). Rational exponents in extremal graph theory. Journal of the European Mathematical Society. Vol 20, Issue 7, pp1747-1757	https://doi.org/10.4171/JEMS/798
	2016	Ryan R. Martin, Richard Mycroft, Jozef Skokan,(2016), An asymptotic multipartite Kühn-Osthus theorem, SIAM J. Discrete Math 31(3) 1498--1513	–
	2017	Lempert, L. (2017) Noncommutative potential theory. Anal Math 43, 603–627.	https://doi.org/10.1007/s10476-017-0505-x

Function theory in several complex variables in relation to modelling uncertainty			
	2019	Agler, J., McCarthy, (2019) J.E. Non-commutative functional calculus. JAMA 137, 211–229	https://doi.org/10.1007/s11854-018-0070-7
	2015	Agler, McCarthy, (2015), Non-commutative holomorphic functions on operator domains, European Journal of Mathematics, 1:4,731-745,	http://link.springer.com/article/10.1007/s40879-015-0064-2
	2015	Agler, McCarthy (2015), Global holomorphic functions in several non-commuting variables, Canadian Journal of Mathematics, 67:2, 241-285,	–
		Knese, Kosinski, Ransford, Sola, (2015), Cyclic polynomials in anisotropic Dirichlet˜spaces, 2015,	https://arxiv.org/abs/1512.04871
	2015	A. Kamara, (2015), A counterexample to the Γ-interpolation conjecture, Annales Polonici Mathematici., vol 114,issue 2 , pg 115-121.	https://eudml.org/doc/280571
Algebraic Lie theory and representation theory	2017	Anna-Louise Grensing, Volodymyr Mazorchuk, (2017), Finitary 2-categories associated with dual projection functor , Communications in Contemporary Mathematics Vol. 19, No. 03. 1650016	https://doi.org/10.1142/S0219199716500164
	2017	Peter J. McNamara, Peter Tingley, (2017), Face Functors for KLR Algebras, Represent. Theory **21** 106-131	–
	2016	Shun-Jen Cheng, Jae-Hoon Kwon, (2016), Finite-dimensional half-integer weight modules over queer Lie superalgebras, JH. Commun. Math. Phys. 346: 945.	https://doi.org/10.1007/s00220-015-2544-0
	2017	Christopher Bowman, Anton Cox, Liron Speyer, (2017), A Family of Graded Decomposition Numbers for Diagrammatic Cherednik Algebras, *International Mathematics Research Notices*, Volume 2017, Issue 9, 1 May 2017, Pages 2686–2734,	https://doi.org/10.1093/imrn/rnw101
Pseudospectra of operators: spectral singularities, semiclassics, pencils and	2019	Gesztesy, F., Naboko, S.N., Weikard, R. et al. (2019) Donoghue-type m-functions for Schrödinger operators with operator-valued potentials. JAMA 137, 373–427 (2019).	https://doi.org/10.1007/s11854-018-0076-1
	2016	S N Chandler-Wilde, M Lindner, (2016), Coburn's lemma and the finite section method for random Jacobi operators. Journal of Functional Analysis, 270, 802-841	–
	2017	S N Chandler-Wilde & R Hagger, (2017), On symmetries of the Feinberg-Zee random hopping matrix, Operator Theory: Advances and Applications. Vol. 258, 51–78	–

random matrices		Maz'ya, V., Natroshvili, D., Shargorodsky, E., Wendland, W.L. (Eds.), Recent Trends in Operator Theory and Partial Differential Equations: the Roland Duduchava Anniversary Volume,	http://www.springer.com/gb/book/9783319470771
	2018	A. Greenbaum, M.L. Overton, (2018), Numerical Investigation of Crouzeix's Conjecture, Linear Algebra and its Applications 542 225–245	
	2017	Greenbaum, A., Lewis, A.S. & Overton, M.L. (2017) Variational analysis of the Crouzeix ratio. Math. Program. 164, 229–243	https://doi.org/10.1007/s10107-016-1083-6
Statistical and computational methods for relatedness and relationship inference from genetic marker data	2016	**Special Issue: Theoretical Population Biology Volume 107, Pages 1-76 (February 2016). New Developments in Relatedness and Relationship Estimation. Edited by James Cussens and Nuala A. Sheehan, http://www.sciencedirect.com/science/journal/00405809/107 (9papers),**	http://www.sciencedirect.com/science/journal/00405809/107
	2015	Speed D, Balding DJ, (2015), Relatedness in the post-genomic era: is it still useful? Nat Rev Genet, - 16 (1), 33-44.	https://doi.org/10.1038/nrg3821
	2017	Speed D, Cai N, UCLEB Consortium, Johnson M, Nejentsev S, Balding DJ, (2017), Re-evaluation of SNP heritability in complex human traits. Nature Genetics, volume 49, pages 986–992 (2017)	–
	2015	Costa, L, Smith, J, Nichols, T, Cussens, J, Duff, EP & Makin, (2015), Searching Multiregression Dynamic Models of Resting-State fMRI Networks Using Integer Programming, Bayesian Analysis, vol 10, no. 2, pp. 441-478.	_
	2015	Oates, CJ, Smith, JQ, Mukherjee, S & Cussens, J, (2015), Exact estimation of multiple directed acyclic graphs, Statistics and computing, pp. 1-15.	https://doi.org/s11222-015-9570-9
	2016	Cussens, J, Haws, D & Studený, M, (2016), Polyhedral aspects of score equivalence in Bayesian network structure learning, Math. Program., Ser. A, pp. 1-40.	https://doi.org/10.1007/s10107-016-1087-2
	2017	Haws, D, Cussens, J & Studený, M, (2017), Polyhedral approaches to learning Bayesian networks, Algebraic and Geometric Methods in Discrete Mathematics: Contemporary Mathematics. Vol. 685 Providence, RI : American Mathematical Society, p. 155-188.	_

	2016	Studený´, M & Cussens, J, (2016), The Chordal Graph Polytope for Learning Decomposable Models, Proceedings of the Eighth International Conference on Probabilistic Graphical Models. vol. 52, Journal of Machine Learning Research: Workshop and Conference Proceedings, pp. 499-510.	–

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Singularities in geometry and applications III	2013	**Conference Proceedings, Journal of Singularities, Volume 12: Singularities in Geometry and Applications III, 2-6 September 2013, Edinburgh, Scotland ((15 papers)**	http://journalofsing.org/volume12/index.html
	2017	P. J. Giblin, S. Janeczko, (2017), Bifurcation sets of families of reflexions on surfaces in R^3, Proceedings of the Royal Society of Edinburgh, Volume 147, Issue 2, pp. 337-352,	https://doi.org/10.1017/S0308210516000184
	2016	Maciej Borodzik, Eugene Gorsky, (2016), Immersed concordances of links and Heegaard Floer homology, Indiana Univ. Math. J. 67 (2018), 1039-1083	–
Tipping points: fundamentals and applications	2013	Anderies, John M., et al. (2013), The topology of non-linear global carbon dynamics: from tipping points to planetary boundaries. Environmental Research Letters, 8.4 (2013): 044048.	–
	2016	P. Ritchie, J. Sieber, (2016) Probability of noise and rate-induced tipping, Phys. Rev. E 95, 052209	_
	2017	Peter Ashwin, Clare Perryman, Sebastian Wieczorek, Parameter shifts for nonautonomous systems in low dimension: Bifurcation- and Rate-induced tipping, Nonlinearity 30(6):2185-2210 (2017)	_
	2015	(Eds. Marian Gidea, J. Sieber, M. Silber, S. Wieczorek), (2015), Special Issue on Tipping Points: Fundamentals and Applications, Communications in Nonlinear Science and Numerical Simulation.	_
	2018	Marian Gidea, Yuri Katz, (2018), Topological Data Analysis of Financial Time Series: Landscapes of Crashes, 2017, Physica A 491 820–834	–
	2017	E. Shmueli et al. (eds.), (2017), Topological data analysis of critical transitions in financial networks, 3rd International Winter School and Conference on Network Science, Springer Proceedings in Complexity, ISBN 978-3-319-55471-6	_
	2013	Berwald, Jesse & Gidea, Marian. (2013). Critical Transitions In a Model of a Genetic Regulatory System. Mathematical Biosciences and Engineering. 11(4):723-740	https://doi.org/10.3934/mbe.2014.11.723

	2014	Jesse Berwald, Marian Gidea, Mikael Vejdemo-Johansson (2014), Automatic Recognition and Tagging of Topologically Different Regimes in Dynamical Systems, Discontinuity, Nonlinearity and Complexity, Vol. 3,	_
	2015	J. Zhu, R. Kuske, T. Erneux, (2015), Tipping points near a delayed saddle node bifurcation with periodic forcing, SIAM J. Appl. Dyn. Syst. 14, pp. 2030-2068,	https://doi.org/10.1137/140992229
	2015	W.F. Thompson, R. Kuske, A. Monahan, (2015), Stochastic averaging of dynamical systems with multiple time scales forced with α-stable noise , Multiscale Modeling and Simulation (SIAM), Multiscale Model. Simul., 13(4), 1194–1223,	https://epubs.siam.org/doi/10.1137/140990632
Stochastic, statistical and computational approaches to Immunology	2016	Höfer T, Barile M, Flossdorf M, (2016), Stem-cell dynamics and lineage topology from in vivo fate mapping in the hematopoietic system, Current Opinion in Biotechnology 39:150-6,	https://www.ncbi.nlm.nih.gov/pubmed/27107166
	2015	Flossdorf M, Rössler J, Buchholz VR, Busch DH, Höfer T, (2015), T cell diversification by asymmetric cell division, Nature Immunology;16(9):891-3,	http://www.nature.com/ni/journal/v16/n9/full/ni.3235.html
	2016	Himadri Mukhopadhyay, Ben de Wet, Lara Clemens, Philip K. Maini, Jun Allard, P. Anton van der Merwe, Omer Dushek, (2016), Multisite Phosphorylation Modulates the T Cell Receptor ζ -Chain Potency but not the Switch like Response, Biophysical Journal Volume 110, Issue 8, 26 April 2016, Pages 1896–1906,	http://www.sciencedirect.com/science/article/pii/S0006349516301047
SYSTEMS BIOLOGY - Information, probability and inference in systems biology	2015	TJ Kobayashi, Y Sughiyama (2015), Fluctuation relations of fitness and information in population dynamics, Phys. Rev. Lett. 115, 238102,	https://journals.aps.org/prl/abstract/10.1103/PhysRevLett.115.238102
Ricci curvature: limit spaces and Kahler geometry		Kael Dixon, Regular ambitoric 4-manifolds: from Riemannian Kerr to a complete classification, 2016,	arXiv:1604.03156
	2020	Jason D. Lotay, Tommaso Pacini, (2020) From Lagrangian to totally real geometry: coupled flows and calibrations, Communications in Analysis and Geometry, Volume 28, Number 3 pages 607-675	https://dx.doi.org/10.4310/CAG.2020.v28.n3.a5
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		Jason D. Lotay, Tommaso Pacini, (2019), Complexified diffeomorphism groups, totally real submanifolds and Kähler-Einstein geometry, Trans. Amer. Math. Soc. 371, 2665-2701	
		Mario Garcia-Fernandez, Julien Keller, Julius Ross, Quantization of Hitchin's equations for Higgs Bundles I, 2016,	https://arxiv.org/abs/1601.04960
	2018	Julien Keller, Kai Zheng, (2018), Construction of constant scalar curvature Kähler cone metrics, Proc. London Math. Soc. (3) 00 1–47	–
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