

PIMS 2011 Publications

Below we list publications for PIMS CRG activities, PDFs and CNRS Researchers. Only publications dated 2011 are listed.

1. Abdallah, N.B., Mellet, A. and Puel, M. Anomalous diffusion limit for kinetic equations with degenerate collision frequency. To appear in *Math. Models and Methods in Applied Sciences*.
2. Adams, M.D. A flexible content-adaptive mesh-generation strategy for image representation. *IEEE Transactions on Image Processing*. 20 (2011), no. 9, 2414-2427.
3. Adams, M.D. An incremental/decremental Delaunay mesh-generation framework for image representation. *Proc. Of IEEE International Conference on Image Processing, Brussels, Belgium*. (2011):193-196.
4. Adcock, B. Gibbs phenomenon and its removal for a class of orthogonal expansions. *BIT* 51(2011), no.1, 7-41.
5. Adcock, B. On the convergence of expansions in polyharmonic eigen-functions. *J. Approximation Theory*. 163 (2011), 1638-1674.
6. Adcock, B. and Hansen, A.C. A generalized sampling theorem for stable reconstructions in arbitrary bases. To appear in *J. Fourier Anal. Appl.*
7. Adcock, B. and Hansen, A.C. Sharp bounds, optimality and a geometric interpretation for generalized sampling in Hilbert spaces. Submitted to *SIAM J. Mathematical Analysis*.
8. Adcock, B. and Hansen, A.C. Stable reconstructions in Hilbert spaces and the resolution of the Gibbs phenomenon. To appear in *Appl. Comput. Harmon. Anal.*
9. Adcock, B. and Huybrechs, D. On the resolution power of Fourier extensions for oscillatory functions. Submitted to *J. Comput. Phys.*
10. Adcock, B. Convergence acceleration of modified Fourier series in one or more dimensions. *Math Comp.* 80 (2011), no. 273, 225-261.
11. Adem, A., Cohen, F. and Giese, E. Commuting elements, simplicial spaces and filtrations of classifying spaces. *Mathematical Proceedings of the Cambridge Philosophical Society*, Available on CJO 2011 doi:10.1017/S0305004111000570.
12. Adem, A., Duman, A. and Gomez, J. Cohomology of toroidal orbifold quotients. *J. Algebra*. 344 (2011), 114-136.
13. Agueh, M. and Carlier, G. Barycenters in the Wasserstein space. *SIAM Journal of Mathematical Analysis*. 43 (2011), no.2, 904-924.
14. Agueh, M., Illner, R. and Richardson, A. Analysis and simulations of a refined flocking and warming model of Cucker-Smale type. *Kinetic and Related Models*. 4 (2011), no.1, 1-16.
15. B. Ahmadi, F. Alinaghipour, S. Fallat, Y. Fan, K. Meagher, and S. Nasserar, The minimum rank of universal adjacency matrices. Submitted to *J. Linear Alg. Appl.*, Ref. No. LAA-D-11-00072, 24 pages.
16. Akhunov, T. Local well posedness of quasi-linear systems generalizing KdV. To appear in *Commun. Pure and Applied Analysis*.
17. Allali, J., Chauve, C., Ferraro, P. and Gaillard, A. Efficient chaining of seeds in ordered trees. To appear in *Proc. 21st International Workshop on Combinatorial Algorithms (IWOCOA)*.
18. Angel, O., Benjamini, I., Gurel-Gurevich, O., Meyerovitch, T. and Peled, R. Stationary map coloring. To appear in *Annales de l'Institut Henri Poincare*.
19. Anisimov, P., Dowling, J. and Sanders, B. Objectively discerning Autler-Townes splitting from electromagnetically induced transparency. To appear in *Physical Review Letters*.
20. Argerami, M., Farenick, D. and Massey, P. Injective envelopes and local multiplier algebras of some spatial continuous trace C^*

- algebras. To appear in *Quarterly Journal of Mathematics (Oxford)*.
21. Argerami, M., Farenick, D. and Massey, P. Second-order local multiplier algebras of continuous trace C^* -algebras. Preprint (2011) *arXiv*: OA/1102.4869.
 22. Ashander, J., Krkosek, M. and Lewis, M. Aqua-culture-induced changes to dynamics of migratory hosts and specialist parasite: A case study of pink salmon and sea lice. To appear in *Theoretical Ecology*.
 23. Bailey, R. and Cameron, P. Base size, metric dimension and other invariants of groups and graphs. *Bull. London Math. Soc.* 43 (2011), 209-242.
 24. Bailey, R. and Meagher, K. On the metric dimension of Grassmann graphs. To appear in *Discrete Mathematics and Theoretical Computer Science*.
 25. Bailey, R. and Stevens, B. Uncoverings on graphs and network reliability. *Australasian Journal of Combinatorics.* 50 (2011), 219-231.
 26. Bailey, R., Burgess, A., Cavers, M. and Meagher, K. Generalized covering designs and clique coverings. *J. Combinatorial Designs.* 19 (2011), 378-406.
 27. Berenbrink, P., Cooper, C., Friedetzky, T., Friedrich, T. and Sauerwald, T. Randomized diffusion for indivisible loads. To appear in *Proc. 22nd ACM-SIAM Symposium on Discrete Algorithms.* (2011), 429-439.
 28. Berenbrink, P., Elsasser, R., Friedetzky, T., Nagel, L. and Sauerwald, T. Faster coupon collecting via replication with applications in gossiping. To appear in *Proc. Of the 36th International Symposium on Math. Foundations of Computer Science.* (2011), 72-83.
 29. Berenbrink, P., Hofer, M., Sauerwald, T. Distributed selfish load balancing on networks. To appear in *Proc. Of 22nd ACM-SIAM Symposium on Discrete Algorithms.* (2011), 1487-1497.
 30. Berezansky, L. and Braverman, E. New stability conditions for linear difference equations using Bohl-Perron type theorems. *Journal of Difference Equations and Applications.* 17 (2011), no.5, 657-675.
 31. Berezansky, L. and Braverman E. New stability conditions for linear differential equations with several delays. *Abstract and Appl. Anal.* (2011), 178568 – 178586.
 32. Berezansky, L. and Braverman, E. On Nonoscillation of advanced differential equations with several terms. *Abstract and Appl. Anal.* 1085-3375 (2011), 637142 – 637155.
 33. Berezansky, L. and Braverman, E. On some constants for oscillation and stability of delay equations. *Prroc. Amer. Math. Soc.* 139 (2011), no. 11, 4017-4026.
 34. Berezansky, L. and Braverman, E. Preservation of exponential stability for equations with several delays. *Mathematica Bohemica.* 136 (2011), no. 2, 135-144.
 35. Berezansky, L. and Braverman, E. Stability of linear differential equations with a distributed delay. *Commun. Pure Appl. Anal.* 10 (2011), no. 5, 1361-1375.
 36. Berezansky, L., Braverman, E. and Domoshnitsky, A. On nonoscillation of systems of delay equations. *Funkcialaj Ekvacioj.* 54(2011), 275-296.
 37. Biasse, J.-F. An $L(1/3)$ algorithm for ideal class group and regulator computation in certain number fields. To appear in *Mathematics of Computation.*
 38. Blokh, A.M., Mimbs, D., Oversteegen, L.G. and Valkenburg, K.I.S. Laminations in the language of leaves. Preprint.
 39. Braverman, E. and Karpuz, B. Nonoscillation of second-order dynamic equations with several delays. *Abstract and Applied Analysis.* 1085-3375 (2011), 591254 – 591287.
 40. Braverman, E. and Karpuz, B. On oscillation of differential and difference equations with non-monotone delays. *Appl. Math. Computat.* 218 (2011): 3880-3887.
 41. Braverman, E. and Saker, S.] On a difference equation with exponentially decreasing nonlinearity. *Discrete Dynamics in Nature and Society.* (2011), ID 147926.
 42. Bravyi, S., Harrow, A. and Hassidim, A. Quantum algorithms for testing properties of distributions. *IEEE Trans. Information Theory.* 57 (June 2011), no. 6, 3971-3981.
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 45. Caffarelli, L., Mellet, A. and Sire, Y. Traveling waves for a boundary reaction-diffusion equation. *arXiv* (2011).
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 50. Chapuy, G. A new combinatorial identity for unicellular maps, via a direct bijective approach. To appear in *Advances in Applied Mathematics*.
 51. Chapuy, G. and Bernardi, O. A bijection for covered maps, or a shortcut between Harer-Zagier's and Jackson's formulas. *Journal of Combinatorial Theory, Series A.* 118 (2011), no. 6, 1718-1748.
 52. Chapuy, G. and Bernardi, O. Counting unicellular maps on non-orientable surfaces. *Advances in Applied Mathematics.* 47 (2011), no. 2, 259-275.
 53. Chapuy, G., Bousquet-Melou, M. and Preville-Ratelle, L. Tamari lattices and parking functions: proof of a conjecture of F. Bergeron. *arXiv* (2011).
 54. Chapuy, G., De Vos, M., McDonald, J., Mohar, B. and Scheide, D. Packing triangles in weighted graphs. *arXiv* (2011).
 55. Chapuy, G., Fusy, E., Gimenez, O., Mohar, B. and Noy, M. Asymptotic enumeration and limit laws for graphs of fixed genus. *Journal of Combinatorial Theory, Series A.* 118 (2011), no.3, 748-777.
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 59. Choksi, R., Maras, M. and Williams, J. 2D phase diagram for minimizers of a Cahn-Hilliard functional with long-range interactions. To appear in *SIAM Journal of Applied Dynamical Systems* (2011).
 60. Choksi, R., van Gennip, Y. and Oberman, A. Anisotropic total variation regularized $\$L_1\$$ -approximation and denoising/deblurring of 2D bar codes. *Inverse Problems and Imaging.* 5 (2011), no.3, 591-617.
 61. Chu, C.-H. and Lau, A.T. Harmonic functions on topological groups and symmetric spaces. *Math. Z.* 268 (2011), 649-673).
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 66. Cuntz, J., Deninger, C. and Laca, M. C^* -algebras of Toeplitz type associated with algebraic number fields. Preprint (2011) *arXiv*: OA/1105.5352.
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- responses to chemother-apies. Submitted to Proc. 19th Annual Int. Conferece on Intelligent Systems for Molecular Biology (ISMB).
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 73. Dijkstra, J.J. and Valkenburg, K.I.S. Classifying Erdős type spaces of higher descriptive complexity. Preprint.
 74. Dijkstra, J.J., Valkenburg, K.I.S. and Visser, D. Nonseparable complete Erdős spaces and submeasures on uncountable cardinals. *Topology Proc.* 37 (2011): 481-502.
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