

PUBLICATIONS CMLA 2014

ARTICLES scientifiques dans revues nationales / internationales à comité de lecture

PEER-REVIEWED ARTICLES - Journal Paper Articles

1. A. Allain, I. Chauvot de Beauchene, F. Langenfeld, Y. Guarracino, E. Laine, and **L. Tchertanov**. *Allosteric pathway identification through network analysis: from molecular dynamics simulations to interactive 2D and 3D graphs*. FARADAY DISCUSSIONS, 169:303–321, 2014. DOI: [10.1039/c4fd00024b](https://doi.org/10.1039/c4fd00024b)
2. J.-P. Allouche and **Y. Meyer**. *Quasicrystals, model sets, and automatic sequences*. COMPTES RENDUS PHYSIQUE, 15(1):6–11, JAN 2014. DOI: [0.1016/j.crhy.2013.09.002](https://doi.org/0.1016/j.crhy.2013.09.002)
3. C. Ballester, F. Calderero, V. Caselles, and **G. Facciolo**. *Multiscale analysis of similarities between images on Riemannian manifolds*. MULTISCALE MODELING & SIMULATION, 12(2):616–649, 2014. DOI: [10.1137/130926833](https://doi.org/10.1137/130926833)
4. A. Barcarolo, D. Le Touze, G. Oger, and **F. de Vuyst**. *Adaptive particle refinement and derefinement applied to the smoothed particle hydrodynamics method*. JOURNAL OF COMPUTATIONAL PHYSICS, 273:640–657, SEP 15 2014. DOI: [10.1016/j.jcp.2014.05.040](https://doi.org/10.1016/j.jcp.2014.05.040)
5. F. Baus, **M. Nikolova**, and G. Steidl. *Fully Smoothed $l(1)$ -TV Models: Bounds for the Minimizers and Parameter Choice*. JOURNAL OF MATHEMATICAL IMAGING AND VISION, 48(2, SI):295–307, FEB 2014. DOI: [10.1007/s10851-013-0420-0](https://doi.org/10.1007/s10851-013-0420-0)
6. K. Beauchard and **M. Morancey**. *Local controllability of 1D Schrodinger equations with bilinear control and minimal time*. MATHEMATICAL CONTROL AND RELATED FIELDS, 4(2):125–160, JUN 2014. DOI: [10.3934/mcrf.2014.4.125](https://doi.org/10.3934/mcrf.2014.4.125)
7. S. Benjelloun, A. Moussa, and **L. Desvillettes**. *Existence theory for the kinetic-fluid coupling when small droplets are treated as part of the fluid*. JOURNAL OF HYPERBOLIC DIFFERENTIAL EQUATIONS, 11(1):109–133, MAR 2014. DOI: [10.1142/S0219891614500027](https://doi.org/10.1142/S0219891614500027)
8. H. Berestycki, **L. Desvillettes**, and O. Diekmann. *Can climate change lead to gap formation?* ECOLOGICAL COMPLEXITY, 20(SI):264–270, DEC 2014. DOI: [10.1016/j.ecocom.2014.10.006](https://doi.org/10.1016/j.ecocom.2014.10.006)
9. **A. Bernard-Champmartin** and **F. De Vuyst**. *A low diffusive Lagrange-remap scheme for the simulation of violent air-water free-surface flows*. JOURNAL OF COMPUTATIONAL PHYSICS, 274:19–49, OCT 1 2014. DOI: [10.1016/j.jcp.2014.05.032](https://doi.org/10.1016/j.jcp.2014.05.032)
10. **A. Bernard-Champmartin**, O. Poujade, J. Mathiaud, and **J. M. Ghidaglia**. *Modelling of an Homogeneous Equilibrium Mixture Model (HEM)*. ACTA APPLICANDAE MATHEMATICAE, 129(1):1–21, FEB 2014. DOI: [10.1007/s10440-013-9827-2](https://doi.org/10.1007/s10440-013-9827-2)

11. M. Bisi and L. Desvillettes. *Formal passage from kinetic theory to incompressible navier-stokes equations for a mixture of gases*. ESAIM MATHEMATICAL MODELLING AND NUMERICAL ANALYSIS - MODELISATION MATHEMATIQUE ET ANALYSE NUMERIQUE, 48(4):1171–1197, JUL 2014. DOI: [10.1051/m2an/2013135](https://doi.org/10.1051/m2an/2013135)
12. J. L. Bocquet. *Correlation factor for diffusion in cubic crystals with solute-vacancy interactions of arbitrary range*. PHILOSOPHICAL MAGAZINE, 94(31):3603–3631, NOV 2 2014. DOI: [10.1080/14786435.2014.965768](https://doi.org/10.1080/14786435.2014.965768)
13. V. Brandon, B. Canaud, M. Temporal, and R. Ramis. *Low initial aspect-ratio direct-drive target designs for shock- or self-ignition in the context of the laser Megajoule*. NUCLEAR FUSION, 54(8), AUG 2014. DOI: [10.1088/0029-5515/54/8/083016](https://doi.org/10.1088/0029-5515/54/8/083016)
14. J. A. Canizo, L. Desvillettes, and K. Fellner. *Improved duality estimates and applications to reaction-diffusion equations*. COMMUNICATIONS IN PARTIAL DIFFERENTIAL EQUATIONS, 39(6):1185–1204, JUN 3 2014. DOI: [10.1080/03605302.2013.829500](https://doi.org/10.1080/03605302.2013.829500)
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18. I. Chauvot de Beauchene, A. Allain, N. Panel, E. Laine, A. Trouvé, P. Dubreuil, and L. Tchertanov. *Hotspot mutations in KIT receptor differentially modulate its allosterically coupled conformational dynamics: impact on activation and drug sensitivity*. PLOS COMPUTATIONAL BIOLOGY, 10(7), JUL 2014. DOI: [10.1371/journal.pcbi.1003749](https://doi.org/10.1371/journal.pcbi.1003749)
19. A. Chen, J. Darbon, G. Buttazzo, F. Santambrogio, and J.-M. Morel. *On the equations of landscape formation*. INTERFACES AND FREE BOUNDARIES, 16(1):105–136, 2014. DOI: [10.4171/IFB/315](https://doi.org/10.4171/IFB/315)
20. A. Chen, J. Darbon, and J.-M. Morel. *Landscape evolution models: A review of their fundamental equations*. GEOMORPHOLOGY, 219 (2014): 68-86. DOI: [10.1016/j.geomorph.2014.04.037](https://doi.org/10.1016/j.geomorph.2014.04.037)
21. M. Colom, A. Buades, and J.-M. Morel. *Nonparametric noise estimation method for raw images*. JOURNAL OF THE OPTICAL SOCIETY OF AMERICA A-OPTICS IMAGE

SCIENCE AND VISION, 31(4):863–871, APR 2014. DOI: [10.1364/JOSAA.31.000863](https://doi.org/10.1364/JOSAA.31.000863)

22. F. Conforto and [L. Desvillettes](#). *Rigorous passage to the limit in a system of reaction-diffusion equations towards a system including cross diffusions*. COMMUNICATIONS IN MATHEMATICAL SCIENCES, 12(3):457–472, 2014. DOI: [10.4310/CMS.2014.v12.n3.a3](https://doi.org/10.4310/CMS.2014.v12.n3.a3)
23. [R. Conte](#) and I. Dornic. *The master Painleve VI heat equation*. COMPTES RENDUS MATHEMATIQUE, 352(10):803–806, OCT 2014. DOI: [10.1016/j.crma.2014.08.006](https://doi.org/10.1016/j.crma.2014.08.006)
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25. [A. Debayle](#), L. Gremillet, L. Berge, and C. Koehler. *Analytical model for THz emissions induced by laser-gas interaction*. OPTICS EXPRESS, 22(11):13691–13709, JUN 2 2014. DOI: [10.1364/OE.22.013691](https://doi.org/10.1364/OE.22.013691)
26. [C. de Franchis](#), [E. Meinhardt-Llopis](#), J. Michel, [J.-M. Morel](#), [G. Facciolo](#). *Automatic digital surface model generation from Pléiades stereo images*. REVUE FRANÇAISE DE PHOTOGRAMMETRIE ET DE TELEDETECTION, 208 (2014): 137-142.
27. [M. Delbracio](#), P. Muse, A. Buades, J. Chauvier, N. Phelps, and [J.-M. Morel](#). *Boosting Monte Carlo rendering by ray histogram fusion*. ACM TRANSACTIONS ON GRAPHICS, 33(1), JAN 2014. DOI: [10.1145/2532708](https://doi.org/10.1145/2532708)
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30. J. Digne and [J.-M. Morel](#). *Numerical analysis of differential operators on raw point clouds*. NUMERISCHE MATHEMATIK, 127(2):255–289, JUN 2014. DOI: [10.1007/s00211-013-0584-y](https://doi.org/10.1007/s00211-013-0584-y)
31. J. Duran and [A. Buades](#). *Self-Similarity and Spectral Correlation Adaptive Algorithm for Color Demosaicking*. IEEE TRANSACTIONS ON IMAGE PROCESSING, 23(9):4031–4040, SEP 2014. DOI: [10.1109/TIP.2014.2341928](https://doi.org/10.1109/TIP.2014.2341928)
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35. P. D. S. Figueiredo Celestino Gomes, N. Panel, E. Laine, P. G. Pascutti, E. Solary, and L. Tchertanov. *Differential effects of CSF-1R D802V and KIT D816V homologous mutations on receptor tertiary structure and allosteric communication*. PLOS ONE, 9(5), MAY 14 2014. DOI: [10.1371/journal.pone.0097519](https://doi.org/10.1371/journal.pone.0097519)
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42. E. Meinhardt-Llopis, and M. Micheli, *Implementation of the Centroid Method for the Correction of Turbulence*, IMAGE PROCESSING ON LINE, 4 (2014), pp. 187–195. DOI: [10.5201/ipol.2014.105](https://doi.org/10.5201/ipol.2014.105)
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48. **I. Rey Otero**, and **M. Delbracio**, *Anatomy of the SIFT Method*, IMAGE PROCESSING ON LINE, 4 (2014), pp. 370–396. DOI: [10.5201/ipol.2014.82](https://doi.org/10.5201/ipol.2014.82)
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60. Y. Simon, A. Marchadier, M. K. Riviere, K. Vandamme, F. Koenig, F. Lezot, [A. Trouvé](#), C. L. Benhamou, J. L. Saffar, A. Berdal, and J. R. Nefussi. *Cephalometric assessment of craniofacial dysmorphologies in relation with Msx2 mutations in mouse*. ORTHODONTICS & CRANIOFACIAL RESEARCH, 17(2):92–105, MAY 2014. DOI: [10.1111/ocr.12035](https://doi.org/10.1111/ocr.12035)
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ACTES DE CONFERENCES dans congrès internationaux avec actes et comité de lecture
PROCEEDINGS PAPERS

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2. J. Brennan, C. Viotti, and F. Dias. *Pressure fluctuations on a vertical wall during extreme run-up cycles*. In 33RD INTERNATIONAL CONFERENCE ON OCEAN, OFFSHORE AND ARCTIC ENGINEERING, San Francisco, CA, JUN 08-13, 2014, vol. 4A : Structures, Safety and Reliability, Paper No. OMAE2014-23444, pp. V04AT02A038, 7 pages. DOI: [10.1115/OMAE2014-23444](https://doi.org/10.1115/OMAE2014-23444)
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4. E. Contal, V. Perchet, N. Vayatis. *Gaussian Process Optimization with Mutual Information*. Proceedings of the 31st INTERNATIONAL CONFERENCE ON MACHINE LEARNING, Beijing, CHINA, JUN 21-26, 2014, JMLR W&CP 32, pp. 253-261. <http://jmlr.csail.mit.edu/proceedings/papers/v32/contal14.html>
5. C. de Franchis, E. Meinhardt-Llopis, J. Michel, J.-M. Morel, and G. Facciolo. *Automatic sensor orientation refinement of pleiades stereo images*. In 2014 IEEE INTERNATIONAL GEOSCIENCE AND REMOTE SENSING SYMPOSIUM (IGARSS), Quebec, CANADA, JUL 13-18, 2014, pp. 1639–1642. DOI: [10.1109/IGARSS.2014.6946762](https://doi.org/10.1109/IGARSS.2014.6946762)

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TALKS, SEMINARS, WORKSHOPS, SYMPOSIA.

1. Allain, I. Chauvot de Beauchêne, and L. Tchertanov. *Allosteric Pathway Identification through Network Analysis: from Molecular Dynamics Simulations to Interactive 2D and 3D Graphs*. *Molecular Simulations and Visualization*. Faraday Discussions 169. MAY 7-9, 2014, Nottingham, UK.
2. Marie Béchereau. *Les méthodes numériques pour les écoulements multiphasiques avec du calcul sur cartes graphiques*. Journée de restitution des doctorants financés par la région Ile-de-France, OCT 2, 2014, à l'Institut Henri Poincaré (Paris, France). <http://www.rdm-idf.fr/fr/journees-de-restitution-52.htm>
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5. J.-M. Morel. Conférence invitée le 16 août dans le cadre de l'ICM: *A Mathematical Perspective of Image Denoising*. International Congress of Mathematicians (ICM), Séoul, AUG 13-21, 2014.
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7. **M. Nikolova**. *Possible equivalence between the optimal solutions of least squares regularized by L0 norm and penalized by L0 norm*, in plenary session, Sparse Days at CERFACS, June, 2014.
8. **M. Nikolova** (joint work with G. Steidl). *Fast Hue and Range preserving Histogram Specification: New algorithms, Theory and Applications*, Workshop entitled "Optimization in Image Processing", University of Macau, May 2014.
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11. **M. Nikolova**. *Non Convex Minimization using Convex Relaxation. Some Hints to Formulate Equivalent Convex Energies*, "Graph Cut, Convex Relaxation and Continuous Max-flow Problems" with E. Bae and X.C. Tai, SIAM Conf. on Imaging Science, Hong Kong 2014.
12. **T. S. Stefanakis, E. Contal, N. Vayatis, F. Dias**, C.E. Synolakis. *Can Small Islands Protect Nearby Coasts from Tsunamis?* SIAM Conference on Uncertainty Quantification. Savannah, Georgia, USA, MAR 31-APR 3, 2014.
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14. **L. Tchertanov**. *Molecular Modeling as a Powerful Tool for Discovery Novel Therapeutic Targets and their Inhibitors*. 1 Octobre 2014. Vet Agro SUP Lyon. Invitation de V. Latard.

Présentations par affiches / POSTERS

N. Chatron, F. Langenfeld, V. Latard and **L. Tchertanov**. *In silico study of Vitamin K epoxide reductase and its mutants*. ECCB 2014: 13th European Conference in Computational Biology, Strasbourg, France, SEP 7-10, 2014.

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