
2 Production scientifique de Laurent D. Cohen, Juillet 2013

Publications.

Thèses.

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- [2] Laurent D. Cohen. *Etude des modèles de contours actifs et d'autres techniques de traitement d'Images*. 2nd PhD thesis, Université Paris-Sud Orsay, 1990.
- [3] Laurent D. Cohen. *Méthodes Variationnelles pour le Traitement d'images*. Université Paris Dauphine, 1995. Mémoire d'Habilitation à diriger des recherches. Accompagné des 10 publications les plus significatives des années 1988-1995.

Articles de Revues Internationales à comité de lecture

- [4] P. Baras and Laurent D. Cohen. Explosion totale après T_{max} de la solution d'une équation de la chaleur non linéaire. *Comptes Rendus de l' Académie des Sciences Sér.I*, 300(10), 1985.
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- [58] Laurent D. Cohen and Isaac Cohen. Deformable models for medical images using finite elements & balloons. Conférence invitée. In *Actes Ecoles CEA - EDF - INRIA; Problèmes Non Linéaires Appliqués: Modélisations Mathématiques pour le traitement d'images*, pages 180–200, Rocquencourt, France, March 1992.
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- [81] Laurent D. Cohen. Geodesic Remeshing using front propagation. Conférence invitée. In *Summer Mathematical Research Center on Scientific Computing and Its Applications.*, Cemracs'07, Pre and Post Processing in Scientific Computing, Luminy, France, 23rd July-31st August 2007.
- [82] Laurent D. Cohen. Fast Curve and Surface Segmentation by finding geodesics. Invited Keynote. Conférence invitée. In *VipIMAGE 2007*, International ECCOMAS

Thematic Conference on computational vision and medical image processing, FEUP, Porto, Portugal, 17-19th October 2007.

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- [86] Laurent D. Cohen. Lignes géodésiques et segmentation d'images. Conférence invitée. In *SMAI-AFA Approximation, Modélisation Géométrique et Applications*., CIRM, Luminy, France, 24-28 novembre 2008.
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- [88] Laurent D. Cohen. Lignes géodésiques et analyse d'images médicales. Conférence invitée. In *1ère Journée de la Recherche à Dauphine* Paris, France 12 mai 2009.
- [89] Laurent D. Cohen. Modèles Déformables et Chemins Minimaux, Applications en analyse d'images médicales. Conférence invitée. In *Cérémonie SMAI en l'honneur des lauréats des prix de Mathématiques Appliquées de l'Académie des Sciences IHP*, Paris, France, 18 Novembre 2009.
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- [91] Laurent D. Cohen. Extraction of tubular and tree structures in biomedical images using minimal paths and tubular models. Conférence invitée. in *Ill-posed Problems*, Rome, Italy. November 29-30, 2010.
- [92] Laurent D. Cohen. Geodesic Methods for Biomedical Image Segmentation. Keynote. in *1st Technion Computer Engineering (TCE) Conference*, Technion, Haifa, Israel. June 1-5, 2011.
- [93] Laurent D. Cohen. Geodesic Methods for Biomedical Image Segmentation. Conférence invitée. in *Analytic and Geometric Methods in Medical Imaging*, Cambridge, UK. August 22-26, 2011.
- [94] Laurent D. Cohen. Geodesic Voting for Image Segmentation. Conférence invitée. in *Fronts and Interfaces in Science and Technology*, bath, UK. December 13-15, 2011.
- [95] Laurent D. Cohen. A Voting scheme for vessel tree segmentation. Conférence invitée. in *Retinal Imaging Treatment and Analysis meeting (RITA)*, Institut de la Vision, Paris, France, October 15, 2012.
- [96] Laurent D. Cohen. Non Local Active Contours. Conférence invitée. in *Workshop on Image Processing and Reaction-Diffusion* , Jerusalem, Israel, September 11-13, 2012.
- [97] Laurent D. Cohen. Non Local Active Contours. Conférence invitée. in *Workshop on Nonlocal Problems*, Zurich, Switzerland, December 12-14, 2012.
- [98] Laurent D. Cohen. Segmentation d'images vasculaires par vote géodésique. Conférence invitée. in *Journée thématique mathématiques, image et biomédecine*, Paris, France, 18 décembre 2012.

- [99] Laurent D. Cohen. Extraction of tubular and tree structures in biomedical images using minimal paths and tubular models. Conférence invitée. in *Summer School and Workshop on Recent Advances in PDEs and Fluids à Stanford University*, Palo Alto, Californie, August 5-18, 2013.

Actes de Colloques avec comité de lecture

Remarquer que certaines entrées regroupent plusieurs publications.

La presque totalité de ces conférences sont internationales.

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- [105] Isaac Cohen, Laurent D. Cohen, and Nicholas Ayache. Introducing deformable surfaces to segment 3D images and infer differential structures. In *Proc. IEEE Computer Society Conference on Computer Vision and Pattern Recognition (CVPR'91)*, pages 738–739, Lahaina, Maui, Hawaii, 1991. voir aussi Proc. IEEE EMBS'91 et RR Inria 1403, May 1991.
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- [107] Isaac Cohen, Laurent D. Cohen, and Nicholas Ayache. Using deformable surface to segment 3-D images and infer differential structures. In *Proc. Second European Conference on Computer Vision (ECCV'92)*, pages 648–652, Santa Margherita Ligure, Italy, May 1992. In Lecture Notes in Computer Science: Computer Vision, Vol. 588 Springer-Verlag. Accompagné d'une vidéo dans les videoproceedings.
- [108] Laurent D. Cohen, Eric Bardinet, and Nicholas Ayache. Reconstruction of digital terrain model with a lake. In *Proceedings SPIE 93 Conference on Geometric Methods in Computer Vision*, San Diego, CA, July 1993. autre version RR Inria 1824, Décembre 1992.
- [109] Isaac Cohen and Laurent D. Cohen. A hybrid hyperquadric model for 2-D and 3-D data fitting. In *Proceedings of the 12th IEEE International Conference on Pattern Recognition (ICPR'94)*, pages B–403–405, Jerusalem, 1994.
- [110] Eric Bardinet, Laurent D. Cohen, and Nicholas Ayache. Fitting 3D data using superquadrics and free-form deformations. In *Proceedings of the 12th IEEE Inter-*

national Conference on Pattern Recognition (ICPR'94), pages A–79–83, Jerusalem, October 1994. voir aussi congrès IEEE WBIA'94 et CVRMed'95.

- [111] Laurent D. Cohen. Auxiliary variables for deformable models. In *Proc. Fifth IEEE International Conference on Computer Vision (ICCV'95)*, pages 975–980, Cambridge, USA, June 1995.
- [112] Laurent D. Cohen and Anne Gorre. On the convexity of the active contour energy. In *Proceedings of GRETSI*, Juan-les-Pins, September 1995.
- [113] Eric Bardinet, Laurent D. Cohen, and Nicholas Ayache. Tracking medical 3D data with a parametric deformable model. In *Proceedings of the IEEE International Symposium On Computer Vision*, Coral Gables, Florida, November 1995.
- [114] E. Bardinet, Laurent D. Cohen, and N. Ayache. Tracking medical 3D data with a deformable parametric model. In *Proc. Third European Conference on Computer Vision (ECCV'96)*, pages I:317–328, Cambridge, U. K., April 1996. Accompagné d'une vidéo dans les videoproceedings.
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- [116] Laurent D. Cohen and Ron Kimmel. Regularization properties for minimal geodesics of a potential energy. In *Proc. 12th International Conference on Analysis and Optimization of Systems: Images, Wavelets and PDE's (ICAOS'96)*, Paris, France, June 1996.
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