

Pierre DÉRIAN

Liste des publications scientifiques – Décembre 2017

Revues Internationales

- Cai, S., E. Mémin, **P. Dérian**, and C. Xu. “Motion estimation under location uncertainty for turbulent fluid flows”. In: *Experiments in Fluids* 59.1 (Nov. 2017), page 8.
- Chapron, B., **P. Dérian**, E. Mémin, and V. Resseguier. “Large scale flows under location uncertainty: a consistent stochastic framework”. In: *Quart. J. Roy. Meteor. Soc.* (Nov. 2017).
- Dérian, P.** and R. Almar. “Wavelet-Based Optical Flow Estimation of Instant Surface Currents From Shore-Based and UAV Videos”. In: *IEEE Trans. Geosci. Remote Sens.* 55 (Oct. 2017), pages 1–8.
- Hamada, M., **P. Dérian**, C. F. Mauzey, and S. D. Mayor. “Optimization of the cross-correlation algorithm for two-component wind field estimation from single aerosol lidar data and comparison with Doppler lidar”. In: *J. Atmos. Ocean. Technol.* 33 (2016), pages 81–101.
- Mayor, S. D., **P. Dérian**, C. F. Mauzey, S. M. Spuler, P. Ponsardin, J. Pruitt, D. Ramsey, and N. S. Higdon. “Comparison of an analog direct detection and a micropulse aerosol lidar at 1.5- μm wavelength for wind field observations—with first results over the ocean”. In: *J. Appl. Remote Sens.* 10.1 (2016), page 016031.
- Dérian, P.**, C. F. Mauzey, and S. D. Mayor. “Wavelet-based optical flow for two-component wind field estimation from single aerosol lidar data”. In: *J. Atmos. Ocean. Technol.* 32 (2015), pages 1759–1778.
- Dérian, P.**, P. Héas, C. Herzet, and E. Mémin. “Wavelets and Optical Flow Motion Estimation”. In: *Num. Math. Theor. Meth. Appl.* 6.1 (Feb. 2013), pages 116–137.
- Kadri Harouna, S., **P. Dérian**, P. Héas, and E. Mémin. “Divergence-free Wavelets and High Order Regularization”. In: *Int. J. Comput. Vision* 103 (2013), pages 80–99.

Note: toutes les revues citées ci-dessus sont indexées au JCR.

Conférences Internationales

- Almar, R., A. Lerma, **P. Dérian**, B. Castelle, and T. Scott. “Transient Surf Zone Circulation Induced by Rhythmic Swash Zone at a Reflective Beach”. In: *Coastal Dynamics 2017*. Helsingør, Danemark, June 2017.
- Cai, S., E. Memin, **P. Dérian**, and C. Xu. “Location Uncertainty Principle: Toward the Definition of Parameter-free Motion Estimators”. In: *EMMCVPR 2017 - 11th International Conference on Energy Minimization Methods in Computer Vision and Pattern Recognition*. Venice, Italy, Oct. 2017.
- Rocha-Brownell, K., **P. Dérian**, D. Richter, P. Sullivan, and S. Mayor. “Evaluation of a wavelet-based optical flow algorithm through the use of large eddy simulations”. In: *28th International Laser Radar Conference*. Bucharest, Romania, June 2017.
- Resseguier, V., E. Mémin, B. Chapron, and **P. Dérian**. “Stochastic parameterization of geophysical flows through modelling under location uncertainty”. In: *Data Analysis and Modeling in Earth Sciences (DAMES) 2016*. Hambourg, Germany, Sept. 2016.

- Mayor, S. D., **P. Dérian**, C. F. Mauzey, and M. Hamada. “Two-component wind fields from single scanning aerosol lidar”. In: *Seventh Symposium on Lidar Atmospheric Applications, 95th Annual Meeting of the American Meteorological Society*. Phoenix, AZ, Jan. 2015.
- Mayor, S. D., **P. Dérian**, C. F. Mauzey, and M. Hamada. “Two-component wind fields from single scanning aerosol lidar”. In: *SPIE Optical Engineering + Applications*. International Society for Optics and Photonics. San Diego, CA, Aug. 2015, pages 96120D–96120D.
- Mayor, S. D., **P. Dérian**, C. F. Mauzey, S. M. Spuler, P. Ponsardin, J. Pruitt, D. Ramsey, and N. S. Higdon. “Comparison of aerosol backscatter and wind field estimates from the REAL and the SAMPLE”. In: *SPIE Optical Engineering + Applications*. International Society for Optics and Photonics. San Diego, CA, Aug. 2015, 96120G–96120G.
- Dérian, P.**, C. F. Mauzey, and S. D. Mayor. “Wavelet optical flow for 2-component wind fields from aerosol backscatter lidar data”. In: *American Meteorological Society’s 21st Symposium on Boundary Layers and Turbulence (AMS BLT)*. Leeds, UK, June 2014.
- Mauzey, C. F., **P. Dérian**, and S. D. Mayor. “Wavelet-Based Optical Flow for Real-Time Wind Estimation Using CUDA”. In: *GPU Technology Conference*. San Diego, CA, Mar. 2014.
- Mayor, S. D., **P. Dérian**, M. Hamada, and C. F. Mauzey. “Two-component vector wind fields by scanning aerosol lidar”. In: *American Geophysical Union (AGU) Fall Meeting*. Volume Presentation A43B-3271. San Francisco, CA, Dec. 2014.
- Mayor, S. D., **P. Dérian**, C. F. Mauzey, and M. Hamada. “Recent progress in 2-component wind field observations by the REAL and motion estimation algorithms”. In: *American Meteorological Society’s 21st Symposium on Boundary Layers and Turbulence (AMS BLT)*. Leeds, UK, June 2014.
- Mayor, S. D., **P. Dérian**, C. F. Mauzey, N. S. Higdon, and T. H. Chyba. “Two-component wind vector fields from scanning aerosol lidars”. In: *18th Annual George Mason University Conference on Atmospheric Transport and Dispersion Modeling*. Fairfax, VA, June 2014.
- Dérian, P.**, C. F. Mauzey, and S. D. Mayor. “Wavelet optical flow for 2-component wind field from horizontally scanning lidar data”. In: *American Geophysical Union (AGU) Fall Meeting*. San Francisco, CA, Dec. 2013.
- Hamada, M., **P. Dérian**, and S. D. Mayor. “Tests of the cross-correlation algorithm using synthetic backscatter lidar images and wind fields”. In: *American Geophysical Union (AGU) Fall Meeting*. San Francisco, CA, Dec. 2013.
- Mayor, S. D. and **P. Dérian**. “The 2013 Chico Lidar Wind Sensing Experiment: Two-component winds above the reach of typical meteorological masts”. In: *American Geophysical Union (AGU) Fall Meeting*. San Francisco, CA, Dec. 2013.
- Mayor, S. D., **P. Dérian**, C. F. Mauzey, T. Henry, E. Mémin, M. Hamada, and D. Scott. “Two-component wind fields from scanning aerosol lidar and motion estimation algorithms”. In: *WindPower 2013*. Chicago, IL, May 2013.
- Mayor, S. D., **P. Dérian**, C. F. Mauzey, and M. Hamada. “Two-component wind fields from scanning aerosol lidar and motion estimation algorithms”. In: *SPIE Optical Engineering + Applications*. San Diego, CA, Aug. 2013.
- Dérian, P.**, P. Héas, C. Herzet, and E. Mémin. “Wavelets to Reconstruct Turbulence Multifractals from Experimental Image Sequences”. In: *7th International Symposium on Turbulence and Shear Flow Phenomena (TSFP-7)*. Ottawa, Canada, July 2011.

- Dérian, P.**, P. Héas, C. Herzet, and E. Mémin. “Wavelet-Based Fluid Motion Estimation”. In: *3rd International Conference on Scale-Space and Variational Methods in Computer Vision (SSVM2011)*. IEEE LNCS. Ein-Gedi, Israel, June 2011.
- Dérian, P.**, P. Héas, E. Mémin, and S. D. Mayor. “Dense Motion Estimation from Eye-Safe Aerosol Lidar Data”. In: *International Laser Radar Conference (ILRC25)*. Volume 1. St Petersburg, Russia, July 2010, pages 377–380.
- Mayor, S., **P. Dérian**, P. Héas, and E. Mémin. “Two-component horizontal motion vectors from scanning eye-safe aerosol lidar”. In: *19th Symposium on Boundary Layers and Turbulence*. Keystone, Colorado, Aug. 2010.

Thèse de doctorat

- Dérian, P.** “Wavelets and Fluid Motion Estimation”. PhD thesis. MATISSE, Université Rennes 1, 2012.

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