

Liste des publications

Abdourrahmane Mahamane ATTO

Maître de conférences, HDR

Université Savoie Mont Blanc (USMB) - ComUE Université Grenoble Alpes (UGA)

Laboratoire d'Informatique, Systèmes, Traitement de l'Information et de la Connaissance (LISTIC)

5, Chemin de Bellevue, B.P. 80439, 74944, Annecy le Vieux Cedex, FRANCE

Email: Abdourrahmane.Atto@univ-smb.fr

↔ Journal Articles - Author Rank 1 (number: 15)

- A. M. Atto and E. Trouvé and J.-M. Nicolas and T. T. Lê, *Wavelet Operators and Multiplicative Observation Models - Application to SAR Image Time Series Analysis*, **IEEE Transactions on Geoscience and Remote Sensing**, DOI: <http://dx.doi.org/10.1109/TGRS.2016.2587626>, 2016.
- A. M. Atto and G. Mercier, *High order structural image decomposition by using non-linear and non-convex regularizing objectives*, **Elsevier Computer Vision and Image Understanding**, available online, <http://dx.doi.org/10.1016/j.cviu.2015.04.002>, 2015.
- A. M. Atto, P. Bolon and K. Salamatian, *Best basis for joint representation: The median of marginal best bases for low cost information exchanges in distributed signal representation*, **Elsevier Information Sciences**, vol. 283, no. 1, <http://dx.doi.org/10.1016/j.ins.2014.06.040>, 2014.
- A. M. Atto, Y. Berthoumieu and P. Bolon, *2-Dimensional Wavelet Packet Spectrum for Texture Analysis*, **IEEE Transactions on Image Processing**, vol. 22, no. 6, <http://dx.doi.org/10.1109/TIP.2013.2246524>, 2013.
- A. M. Atto, E. Trouvé, Y. Berthoumieu and G. Mercier, *Multi-Date Divergence Matrices for the Analysis of SAR Image Time Series*, **IEEE Transactions on Geoscience and Remote Sensing [Special Issue, Analysis of Multitemporal Remote Sensing Data]**, vol. 51, no. 4, <http://dx.doi.org/10.1109/TGRS.2012.2210228>, 2013.
- A. M. Atto, Y. Berthoumieu and R. Mégret, *Stochasticity: A Feature for the Structuring of Large and Heterogeneous Image Databases*, **Entropy [Special Issue, Big Data]**, vol. 15, no. 11, <http://dx.doi.org/10.3390/e15114782>, 2013.
- A. M. Atto and Y. Berthoumieu, *Wavelet Packets of Nonstationary Random Processes: Contributing Factors for Stationarity and Decorrelation*, **IEEE Transactions on Information Theory**, vol. 58, no. 1, <http://dx.doi.org/10.1109/TIT.2011.2167496>, 2012.
- A. M. Atto, C. Martinez and S. Amari, *Control of Discrete Event Systems with Respect to Strict Duration: Supervision of an Industrial Manufacturing Plant*, **Computers & Industrial Engineering, Elsevier**, Vol. 61, no. 4, <http://dx.doi.org/10.1016/j.cie.2011.07.004>, 2011.
- A. M. Atto, D. Pastor and G. Mercier, *Wavelet Shrinkage: Unification of Basic Thresholding functions and Thresholds*, **Signal, Image and Video Processing, Springer**, Vol. 5, No. 1, <http://dx.doi.org/10.1007/s11760-009-0139-y>, 2011.
- A. M. Atto and D. Pastor and G. Mercier, *Wavelet Packets of Fractional Brownian Motion: Asymptotic Analysis and Spectrum Estimation*, **IEEE Transactions on Information Theory**, Vol. 56, No. 9, <http://dx.doi.org/10.1109/TIT.2010.2053865>, 2010.
- A. M. Atto and D. Pastor, *Central Limit Theorems for Wavelet Packet Decompositions of Stationary Random Processes*, **IEEE Transactions on Signal Processing**, Vol. 58, No. 2, <http://dx.doi.org/10.1109/TSP.2009.2031726>, 2010.
- A. M. Atto and D. Pastor and G. Mercier, *Smooth Adaptation by Sigmoid Shrinkage*, **EURASIP Journal on Image and Video Processing**, Article ID 532312, <http://dx.doi.org/10.1155/2009/532312>, 2009.
- A. M. Atto and D. Pastor and G. Mercier, *Wavelet Shrinkage: Unification of Basic Thresholding functions and Thresholds*, **Signal, Image and Video Processing, Springer London**, <http://dx.doi.org/10.1007/s11760-009-0139-y>, 2009.
- A. M. Atto and D. Pastor and G. Mercier, *Detection Threshold for Non-Parametric Estimation*, **Signal, Image and Video Processing, Springer London**, Vol. 2, No. 3, <http://dx.doi.org/10.1007/s11760-008-0051-x>, Sept. 2008.
- A. M. Atto and D. Pastor and A. Isar, *On the Statistical Decorrelation of the Wavelet Packet Coefficients of a Band-Limited Wide-Sense Stationary Random Process*, **Signal Processing, Elsevier**, Vol. 87, No. 10, <http://dx.doi.org/10.1016/j.sigpro.2007.03.014>, Oct. 2007.

↔ Journal Articles - Author Rank 2 and above (number: 4)

- Q. Hoarau, G. Ginolhac, A. M. Atto and J.-M. Nicolas, *Robust Adaptive Detection of Buried Pipes using GPR*, **Elsevier Signal Processing**, <http://dx.doi.org/10.1016/j.sigpro.2016.07.001>, 2016.
- T. T. Lê, A. M. Atto, E. Trouvé, A. Solikhin and V. Pinel, *Change Detection Matrix for Multitemporal Filtering and Change Analysis of SAR and PolSAR Image Time Series*, **Elsevier Journal of Photogrammetry and Remote Sensing**, <http://dx.doi.org/10.1016/j.isprsjprs.2015.02.008>, 2015.

- **T. T. Lê, A. M. Atto**, E. Trouvé and J.-M. Nicolas, *Adaptive Multitemporal SAR Image Filtering Based on the Change Detection Matrix*, **IEEE Geoscience and Remote Sensing Letters**, vol. 11, no. 10, <http://dx.doi.org/10.1109/LGRS.2014.2311663>, 2014.
- D. Pastor and **A. M. Atto**, *Wavelet Shrinkage: from Sparsity and Robust Testing to Smooth Adaptation*, in Book: “Recent Developments in Fractals and Related Fields”, **Applied and Numerical Harmonic Analysis**, Part 2, 207-232, **Birkhauser Boston, Elsevier**, http://dx.doi.org/10.1007/978-0-8176-4888-6_14, 2010

↔ Research Reports (number: 3)

- **Z. TAN, A. M. Atto**, O. Alata and M. Moreaud, *Analyse de modèles statistiques dans un contexte d'imagerie HRTEM*, Rapport de recherche interne, **IFP Energies Nouvelles**, 2015.
- **A. M. Atto**, D. Pastor and Grégoire Mercier, *Detection threshold for soft thresholding*, Rapport de recherche **GET-ENST Bretagne**, **RR-2007006-SC**, 2007.
- **A. M. Atto**, D. Pastor and A. Isar, *Asymptotic Analysis of the Autocorrelation Function of a Band-Limited Wide-Sense Stationary Random Process*, Rapport de recherche **GET-ENST Bretagne**, **RR-20060005-SC**, 2006.

↔ Conference Articles / International / Invited Papers (number: 4)

- **Q. Hoarau, G. Ginolhac, A. M. Atto**, J.-M. Nicolas and J.-P. Ovarlez, *Robust Adaptive Detection of Buried Pipes using GPR*, Special Session: Advanced Statistical Models and Methods for Image Processing, **European Signal Processing Conference**, EUSIPCO, Budapest, Hungary, Aug. 29 - Sept. 2, 2016.
- **A. M. Atto**, E. Trouvé, and J.-M. Nicolas, *Multi-Scale Spatio-Temporal PolSAR Change Analysis*, Invited Session: Advanced polarimetric Methods and Applications, **Advanced SAR, ASAR Workshop**, Montréal, October 20-22, 2015.
- **A. M. Atto**, G. Mercier, **T. T. Lê** and E. Trouvé, *Vector and Matrix L_p Norms In Polarimetric Radar Filtering*, Invited Session: Advanced Methods for Polarimetric Information Extraction, **IEEE International Geoscience and Remote Sensing Symposium**, **IGARSS**, July 22-27, Munich, Germany, 2012.
- D. Pastor and **A. M. Atto**, *Statistics for Sparse transforms : Some recent Results with Application to Speech and Image Processing*, **Fractals and Related Fields**, Conference in honor of **J. Peyrière**, September 8-13, Monastir, Tunisia, 2007.

↔ Conference Articles / International / Regular Submissions (number: 19)

- A. Pinheiro, **A. M. Atto** and E. Trouvé, *Wavelet statistical analysis in multitemporal SAR images*, **International Workshop on Statistical Modelling**, IWSM, Rennes, France, Jul. 4-8, 2016.
- **Z. Tan, A. M. Atto**, O. Alata and M. Moreaud, *ARFBF Model for Non Stationary Random Fields and Application to HRTEM images*, **IEEE International Conference on Image Processing**, **ICIP**, September 27-30, Québec City, France, 2015.
- **T. T. Lê, A. M. Atto** and E. Trouvé, *Change analysis using multitemporal Sentinel-1 SAR images*, **IEEE International Geoscience and Remote Sensing Symposium**, **IGARSS**, July 26-31, Milan, Italy, 2015.
- **T. T. Lê, A. M. Atto** and E. Trouvé, *Change Analysis of Dual Polarimetric Sentinel-1 SAR image time series Using Stationary Wavelet Transform and Change Detection Matrix*, **International Workshop on the Analysis of Multitemporal Remote Sensing Images**, **MULTITEMP**, July 22-24, Annecy, France, 2015.
- N. Bouhleh, G. Ginolhac and **A. M. Atto**, *Multivariate Statistical Modeling for Multi-Temporal SAR Change Detection using Wavelet Transforms*, **International Workshop on the Analysis of Multitemporal Remote Sensing Images**, **MULTITEMP**, July 22-24, Annecy, France, 2015.
- **A. M. Atto**, L. Fillatre, M. Antonini and I. Nikiforov, *Simulation of Image Time Series from Dynamical Fractional Brownian Fields*, **IEEE International Conference on Image Processing**, **ICIP**, October 27-30, Paris, France, 2014.
- **A. M. Atto, Z. Tan**, O. Alata and M. Moreaud, *Non-Stationary Texture Synthesis from Random Field Modeling*, **IEEE International Conference on Image Processing**, **ICIP**, October 27-30, Paris, France, 2014.
- L. Fillatre, M. Antonini, I. Nikiforov and **A. M. Atto**, *Uniformly most powerful detection for integrate and fire time encoding*, **European Signal Processing Conference**, **EUSIPCO**, September 1-5, Lisbon, Portugal, 2014.
- **T. T. Lê, A. M. Atto** and E. Trouvé, *Adaptive Multi-Temporal Filtering of Polarimetric SAR Images*, **IEEE International Geoscience and Remote Sensing Symposium**, **IGARSS**, July 13-18, Québec, Canada, 2014.
- **T. T. Lê, A. M. Atto** and E. Trouvé, *Schatten Matrix Norm based Polarimetric SAR Data Regularisation Application over Chamonix Mont-Blanc*, **POLinSAR - 6th International Workshop on Science and Applications of SAR Polarimetry and Polarimetric Interferometry**, European Space Agency (ESA), Frascati, Italy, 2013.
- **T. T. Lê, A. M. Atto**, E. Trouvé and J.-M. Nicolas, *Temporal adaptive filtering of SAR image time series based on detection of Stable and Change areas*, **TerraSAR-X Science Team Meeting**, German Aerospace Center, Munich, Germany, 2013.
- **A. M. Atto** and Y. Berthoumieu, *Structuring of Large and Heterogeneous Texture Databases*, **IEEE Workshop on Statistical Signal Processing**, **SSP**, Nice, France, June 28 - 30, 2011.
- D. Pastor and **A. M. Atto**, *Sparseness-Based Non-Parametric Detection and Estimation of Random Signals in Noise*, **Signal Processing with Adaptive Sparse Structured Representations**, **SPARS**, Edinburgh, 2011.
- **A. M. Atto** and Y. Berthoumieu, *How to Perform Texture Recognition from Stochastic Modeling in the Wavelet Domain*, **IEEE International Conference on Signal Processing**, **ICASSP**, Prague, Czech Republic, May 22 - 27, 2011.

- **A. M. Atto**, D. Pastor and G. Mercier, *Sparsity measure and the Detection of Significant Data*, Proceedings of **Signal Processing with Adaptive Sparse Structured Representations Workshop, SPARS**, Saint-Malo, France, April 2009.
- **A. M. Atto** and D. Pastor, *On the Distribution of the Wavelet Packet Coefficients of Stationary Random Processes*, **European Signal Processing Conference, EUSIPCO**, August 25-29, Lausanne, Switzerland, 2008.
- D. Pastor and **A. M. Atto**, *Sparsity from Binary Hypothesis Testing and Application to Non-Parametric Estimation*, **European Signal Processing Conference, EUSIPCO**, August 25-29, Lausanne, Switzerland, 2008.
- **A. M. Atto** and D. Pastor, G. Mercier, *Smooth Sigmoid Wavelet Shrinkage for Non-Parametric Estimation*, **IEEE International Conference on Acoustics, Speech, and Signal Processing, ICASSP**, March 30 - April 4, pp. 3265-3268, Las Vegas, USA, 2008.
- **A. M. Atto**, D. Pastor and A. Isar, *On the Asymptotic Decorrelation of the Wavelet Packet Coefficients of a Wide-Sense Stationary Random Process*, **International Symposium on Electronics and Telecommunications**, September 21-23, Timisoara, Romania, 2006.

↔ Conference Articles / National (number: 2)

- **Z. Tan**, O. Alata, M. Moreaud and **A. M. Atto**, *Convolution mixture of FBF and modulated FBF and application to HRTEM images*, **GRETSI Symposium on Signal and Image Processing**, September 8-11, Lyon, France, 2015.
- **A. M. Atto** and Y. Berthoumieu, *Représentations des Textures et des Signaux Aléatoires*, **GRETSI Symposium on Signal and Image Processing**, September 5-8, Bordeaux, France, 2011.