

List of Publications

Herwig Wendt

1 International Journals

- [1] R. Leonarduzzi, P. Abry, H. Wendt, S. Jaffard, H. Touchette, "A Generalized Multifractal Formalism for the Estimation of Nonconcave Multifractal Spectra," 2018. *Submitted*.
- [2] H. Wendt, P. Abry, K. Kiyono, J. Hayano, E. Watanabe, Y. Yamamoto, "Wavelet p-Leader Non Gaussian Multiscale Expansions for Heart Rate Variability Analysis in Congestive Heart Failure Patients," *IEEE T. Biomedical Engineering*, 2018. *In press*. [.pdf](#)
- [3] H. Wendt, S. Combrexelle, Y. Altmann, J.-Y. Tourneret, S. McLaughlin, P. Abry, "Multifractal analysis of multivariate images using gamma Markov random field priors," *SIAM J. on Imaging Sciences (SIIMS)*, vol. 11, no. 2, pp. 1294-1316, 2018. [.pdf](#)
- [4] G. Valenza, H. Wendt, K. Kiyono, J. Hayano, E. Watanabe, Y. Yamamoto, P. Abry, R. Barbieri, "Multifractal Point-Process Heartbeat Dynamics: a Congestive Heart Failure Survivor Prediction Study," *IEEE T. Biomedical Engineering*, 2017. *In press*. [www](#) | [.pdf](#)
- [5] S. Jaffard, S. Seuret, H. Wendt, R. Leonarduzzi, S. Roux, P. Abry, "Multivariate multifractal analysis," *Applied and Computational Harmonic Analysis*, 2017. *In press*. [www](#) | [.pdf](#)
- [6] R. Leonarduzzi, P. Abry, H. Wendt, K. Kiyono, Y. Yamamoto, E. Watanabe, J. Hayano, "Scattering Transform of Heart Rate Variability for the Prediction of Ischemic Stroke in Patients with Atrial Fibrillation," *Methods of Information in Medicine*, vol. 57, no. 3, pp. 141-145, 2018. [.pdf](#)
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- [8] J. Frecon, N. Pustelnik, N. Dobigeon, H. Wendt, P. Abry, "Bayesian selection for the l2-Potts model regularization parameter: 1D piecewise constant signal denoising," *IEEE T. Signal Proces.*, vol. 65, no. 19, pp. 5215-5224, 2017. [.pdf](#)
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- [10] R. Fontunge, P. Abry, K. Fukuda, D. Veitch, K. Cho, P. Borgnat, H. Wendt, "Scaling in Internet Traffic: a 14 year and 3 day longitudinal study, with multiscale analyses and random projections," *IEEE/ACM T. Networking*, vol. 25, no. 4, 2017. [.pdf](#)
- [11] N. Pustelnik, H. Wendt, P. Abry, N. Dobigeon, "Combining local regularity estimation and total variation optimization for scale-free texture segmentation," *IEEE T. Computational Imaging*, vol. 2, no. 4, pp. 468–479, 2016. [.pdf](#)
- [12] T. Nakamura, K. Kiyono, H. Wendt, P. Abry, Y. Yamamoto, "Multiscale Analysis of Intensive Longitudinal Biomedical Signals and its Clinical Applications," *Proc. IEEE*, vol. 104, no. 2, pp. 242–261, 2016. [www](#)

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- [15] H. Wendt, N. Dobigeon, J.-Y. Tourneret, M. Albinet, C. Goldstein, N. Karouche, “Detection and Correction of Glitches in a Multiplexed Multi-channel Data Stream - Application to the MADRAS Instrument,” *IEEE T. Geoscience and Remote Sensing*, vol. 54, no. 5, pp. 2803–2811, 2016. [www](#) | [.pdf](#)
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2 National Journals

- [29] H. Wendt, P. Abry, S.G. Roux, S. Jaffard, B. Vedel, “Analyse multifractale d’image: l’apport des coefficients dominants,” *Revue Traitement du Signal*, vol. 25, no. 4–5, 2009. [.pdf](#)

3 International Conferences with Selection Panels

- [30] H. Wendt, P. Abry, G. Didier, “Bootstrap-based bias reduction for the estimation of the self-similarity exponents of multivariate time series,” *IEEE Int. Conf. Acoust., Speech, and Signal Proces. (ICASSP)*, 2019. *Submitted.*
- [31] G. Didier, H. Wendt, P. Abry, “Detection and estimation of delays in bivariate self-similarity: bootstrapped complex wavelet coherence,” *IEEE Int. Conf. Acoust., Speech, and Signal Proces. (ICASSP)*, 2019. *Submitted.*
- [32] D. Fagot, H. Wendt, C. Fevotte, P. Smaragdis, “Majorization-minimization algorithms for convolutive NMF with the beta-divergence,” *IEEE Int. Conf. Acoust., Speech, and Signal Proces. (ICASSP)*, 2019. *Submitted.*
- [33] P. Ablin, C. Fevotte, H. Wendt, A. Gramfort, C. Fevotte, “A Quasi-Newton algorithm on the orthogonal manifold for NMF with transform learning,” *IEEE Int. Conf. Acoust., Speech, and Signal Proces. (ICASSP)*, 2019. *Submitted.*
- [34] E. Villain, H. Wendt, A. Basarab, D. Kouame, “On multifractal tissue characterization in ultrasound imaging,” *IEEE International Symposium on Biomedical Imaging (ISBI)*, 2019. *Submitted.*
- [35] O. D. Domingues, P. Ciuciu, D. La Rocca, P. Abry, H. Wendt, “Multifractal analysis for cumulant-based epileptic seizure detection in EEG time series,” *IEEE International Symposium on Biomedical Imaging (ISBI)*, 2019. *Submitted.*
- [36] K. Basinet, A. Klein, P. Abry, S. G. Roux, H. Wendt, P. Messier, “Performance of two multiscale texture algorithms in classifying silver gelatine paper via k-nearest neighbors,” *IEEE Int. Conf. Image Proces. (ICIP)*, Athens, Greece, Oct. 2018. [.pdf](#)
- [37] H. Wendt, D. Fagot, C. Fevotte “Jacobi Algorithm for Nonnegative Matrix Factorization with Transform Learning,” *European Signal Processing Conference (EUSIPCO)*, Rome (Italy), Sept. 2018. [.pdf](#)
- [38] D. La Rocca, P. Ciuciu, V. van Wassenhove, H. Wendt, P. Abry, R. Leonarduzzi, “Scale-free Functional Connectivity Analysis from Source Reconstructed MEG Data,” *European Signal Processing Conference (EUSIPCO)*, Rome (Italy), Sept. 2018. [.pdf](#)
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