

GRIVEL Eric

06/09/1972

Professor at Bordeaux INP, IMS lab, UMR CNRS 5218.

1993-1996: Graduate School of engineering, ENSERB, electronics (signal processing).

1996: Master degree in control, University of Bordeaux.

10/1997–01/2000: PhD in the field of signal processing, LAP laboratory, University of Bordeaux.
Contribution au rehaussement du signal de parole par filtrage de Kalman : reformulation de techniques d'identification et modèles harmoniques.
Supervisor/ Prof. M. Najim.

09/2000–08/2001: Assistant professor (*ATER*), ENSEIRB/LAPS laboratory, Talence.

09/2001: Associate professor (*Maître de Conférences*), ENSEIRB/LAPS laboratory, Talence.

09/2011: Full professor (*Prof. des universités*), Bordeaux INP/IMS laboratory, Talence.

CURRENT RESPONSIBILITIES

2018-... : Member and contact person for education in the Aerospace Valley competitiveness cluster. <https://www.aerospace-valley.com/en>

2021-...: Vice-dean of the international relations, Bordeaux INP. <https://www.bordeaux-inp.fr/en>

2023-...: In charge of the international relations commission within the INP group (Bordeaux INP, Grenoble INP, Lorraine INP, Clermont Auvergne INP). <https://www.groupe-inp.fr/>

2024-...: Special adviser “Racism and anti-Semitism” at Bordeaux INP.

RESEARCH ACTIVITIES AND RESPONSIBILITIES

Topics of interest:

- Time/frequency analysis (spectrum analysis and time-frequency/scale analysis). Signal modeling such as AR/MA/ARMA/ARFIMA/FGN processes,
- Entropy and divergence rates for process characterization or comparison (Kullback-Leibler, Jeffreys, Rényi, α -divergence, β -divergence, Sharma-Mittal, etc.).
- Characterization of signal based on Hurst exponent (using the DFA and their variants) and multiscale analysis (MSE and variants).
- Block estimation (error-in-variable method, singular-value-decomposition based approach, etc.), recursive estimation (adaptive filters, optimal filters such as H_∞ filter, Bayesian approaches -parametric or non parametric-, Kalman filter, etc.), estimation based on evolutionary algorithms (genetic algorithms, differential evolution, etc.). Deep learning (CNN, Yolo architecture).

Since 2004: International collaborations with colleagues from University of Bologna and Come (Italy), Wakayama University (Japan), ETS (Canada), University Al Quds University, UTP (Panama), Lebanese International University (Lebanon), EPFL (Switzerland) and IISC Bangalore (India), that led to common papers, co-supervision of internships and PhD students, etc.

Since 2007: Collaborations with Thales, through PhDs, internships, projects in the field of radar processing (target tracking, waveform optimisation, clutter characterization, etc.), anomaly detection and biosignal analysis (tunneling and stress detection) that led to the co-supervision of internships and PhD students, projects, publications and patents.

Other collaborations with SMEs in Nouvelle Aquitaine and CEA.

Since 2009: Multidisciplinary projects done with colleagues working in other fields: electronics (parameter estimation of the Hodgkin-Huxley model with application to neuromimetic analog integrated circuits), psychology and physiology (stress and mental fatigue detection, attentional tunnelling detection).

Summary in terms of publications and supervision:

Publications	Number
Journal papers	40
French-journal paper	1
Papers accepted in international conferences with peer review and proceedings	108
Papers accepted in international conferences without proceedings	8
Papers accepted in French conferences with peer review and proceedings	21
Papers accepted in French conferences without proceedings	2
Patents	6
Supervision	
PhD students (completed)	16
PhD students (in progress)	1
Engineers (fixed-term contract from 3 to 24 months)	17
Internships	42

Recent talks:

- University Abomey-Calavi, Benin, 18/01/2023: « extraction of relevant markers in machine learning approaches ».
- University de Stellenbosch (South Africa), 16/03/2023: « Focus on research in the field of statistical data processing ».
- University du Luxembourg, SNT, 11/10/2023, « Contributions to the analysis of biosignals: variants of DFA and MSE ».
- University du Luxembourg, SNT, 11/10/2023, « Contribution to target tracking in radar applications, based on a Bayesian approach ».

Responsibilities:

2007-2014: Head of the research team « Detection and estimation in localization and communication systems », IMS laboratory, Talence

2014-2022: Head of the Scientific Interest Group *GIS Albatros*, between THALES, University of Bordeaux, Poitiers et Limoges, Bordeaux INP, INRIA and CNRS. Research activities conducted in different fields (electronics, signal and image, human factor, AI, cybersecurity, etc.) through PhDs, internships, projects and studies, patents and publications, organization of workshops.
<https://www.bordeaux-inp.fr/fr/gis-albatros>

Others:

Reviewing for IEEE Trans. on SP, Elsevier Signal Processing, Digital Signal Processing, International Journal of Adaptive Control, Hindawi Mathematical problems for engineering, Physa and for conferences such as NEWCAS, ICASSP, EUSIPCO, GRETSI, IFAC et GSI.

2023-2026: Member of the IEEE SPS Scholarship Committee. My role is to define scholarship criteria, evaluate applications for new scholarships and renewals, request scholarships through donations to the fund for students and young professionals in signal processing. IEEE.

Member of Euraspip, IEEE and French association such as club EEA and GdR ISIS.

TEACHING ACTIVITIES AND RESPONSIBILITIES

More than 250 hours given each year at Bordeaux INP in the field of signal processing: introduction to signal processing, digital signal processing, random signals and process, filtering and estimation, spectrum analysis, adaptive and optimal filtering.

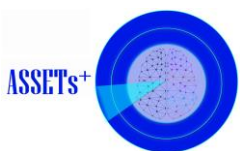
Other experiences in teaching at University of Bordeaux, CNAM (2003-2004), 2 training programs for workers from SMEs with JESSICA France and for workers working at CEA (5 from 2007 to 2013), but also in foreign countries (University Al Quds, Jerusalem, MASTER GEI, University of Pisa in the PhD program for a lecture in spectrum analysis).

I was also involved in the creation of graduate schools of engineering in Bordeaux (ENSPIMA and ENSC).

European projects



2017-2019: Seasonal schools dealing with Next gEneration netwoRked mEdia over 4G+ infrastrUctureS. 5 European partners.



2020-2024: Alliance for Sustainable, Strategic supply of Skills addressing Emerging Technologies in Defence. 4 M€, 30 partners including Universities, Industry, VET, enablers such as clusters, etc. <https://assets-plus.eu/>

In 2020, I put in place the European Defence Challenge. It is not included in the ASSETS+ project. The 5th edition will be launched in May 2024).

<https://assets-plus.eu/challenge/>

Summary in terms of publications

Publications	Number
Pedagogy	9
Chapter in books	14

Responsibilities

2001-2010/2022-... In charge of the internships (BAC+4/5) in the educational and training program in Telecommunications at ENSEIRB-MATMECA.

2002-2008: In charge of the last year of the educational and training program in Telecommunications (BAC+5) at ENSEIRB-MATMECA.

2008-2010: In charge of the 2nd year of the educational and training program in Telecommunications (BAC+4) at ENSEIRB-MATMECA.

2003-2010: In charge of the master degree in signal and image processing, University of Bordeaux.

2010-2017: Head of the Telecommunications department, at ENSEIRB-MATMECA, Bordeaux INP.

2017-2021: In charge of the projects of the 2nd and last year of the educational and training program in Telecommunications (BAC+4 and +5) at ENSEIRB-MATMECA, sponsored by companies like Thales, Orange and ATOS.

Appendices

Books

- [B 1] "Modeling, estimation and optimal filtering", M. Najim, ISTE. 2008. Contribution in several chapters
- [B 2] "Modélisation, estimation et filtrage optimal en traitement du signal", M. Najim, Hermes. 2006. Contribution in several chapters
- [B 3] "Digital Filters Design for Signal and Image Processing", livre sous la direction de M. Najim, ISTE. 2006. Co-auteur de 7 chapitres.
- 3.1. "Introduction to signal and systems", Y. Berthoumieu, **E. Grivel** and M. Najim, pp. 1-19.
- 3.2. "Discrete-time system analysis", M. Najim and **E. Grivel**, pp. 21-50.
- 3.3. "Spectral features of a signal and a filter", **E. Grivel** and Y. Berthoumieu, pp. 51-97.
- 3.4. "Continuous-time filters (analog filters)", D. Bastard and **E. Grivel**, pp. 99-135.
- 3.5. "Finite Impulse Response filter (FIR)", Y. Berthoumieu, **E. Grivel** and M. Najim, pp. 137-172.
- 3.6. "Infinite Impulse Response filter (IIR)", **E. Grivel** and M. Najim, pp. 173-189.
- 3.7. "Selecting the structures for FIR and IIR filters", M. Najim and **E. Grivel**, pp. 191-232.
- [B 4] "Synthèse de filtres numériques pour le signal et les images", livre sous la direction de M. Najim. Traité IC2, Edition Hermes. 2004. Co-auteur de 7 chapitres. In French
- 4.1. "Généralités sur les signaux et les systèmes", Y. Berthoumieu, **E. Grivel** et M. Najim, pp. 19-38.
- 4.2. "Analyse de systèmes discrets", M. Najim et **E. Grivel**, pp. 39-71.
- 4.3. "Caractérisation fréquentielle d'un signal et d'un filtre", **E. Grivel** et Y. Berthoumieu, pp. 73-116.
- 4.4. "Les filtres à temps continu", D. Bastard et **E. Grivel**, pp. 117-159.
- 4.5. "Les filtres à réponse impulsionnelle finie", Y. Berthoumieu, **E. Grivel** et M. Najim, pp. 161-197.
- 4.6. "Les filtres à réponse impulsionnelle infinie", **E. Grivel** et M. Najim, pp. 199-217.
- 4.7. "Structures des filtres RIF et RII", M. Najim et **E. Grivel**, pp. 219-261.

Journal papers (39)

- [J 1] "Estimating the target DOA, range and velocity using subspace methods in a MIMO OFDM DFRC system," S. Bhogavallia, K.V.S. Hari, **E. Grivel** and V. Corretja, Elsevier Signal Processing, Vol. 209, August 2023, 109007.
- [J 2] "Combining the global trends of DFA or CDFA of different orders," **E. Grivel**, G. Colin, J. Soeten et P. Legrand, Elsevier Digital Signal Processing, Vol. 134, 15 April 2023, 103906.
- [J 3] "Analysis of families of divergences to compare Gaussian processes modeled by sums of complex exponentials disturbed by additive white noises," **E. Grivel**, Elsevier Digital Signal Processing, Vol. 123, 2022, 103436.
- [J 4] "A matrix approach to get the variance of the square of the fluctuation function of the DFA, " **E. Grivel**, B. Berthelot and P. Legrand, Elsevier Digital Signal Processing, Vol. 122, 15 April 2022, 103346.
- [J 5] "Definition of the fluctuation function in the detrended fluctuation analysis and its variant," B. Berthelot, **E. Grivel**, P. Legrand et A. Giremus, The European Physical Journal B, 94: 225, 2021.
- [J 6] "Physiological Resonance in Empathic Stress: Insights from Nonlinear Dynamics of Heart Rate Variability," E. Blons, L. Arzac, **E. Grivel**, V. Lespinet-Najib, V. Deschodt-Arsac, International Journal of Environmental Research and Public Health, 2021, 18(4), 2081.
- [J 7] "DFA-based abacuses providing the Hurst exponent estimate for short-memory processes," **E. Grivel**, B. Berthelot, P. Legrand, et A. Giremus, Elsevier Digital Signal Processing, Elsevier, Vol. 116, September 2021, 103102.
- [J 8] "Kullback-Leibler and Rényi divergence rate for Gaussian stationary ARMA processes comparison," **E. Grivel**, R. Diversi et F. Merchan, Elsevier Digital Signal Processing, Vol. 116, September 2021, 103089.
- [J 9] "A Variable Chirp Rate Stepped Frequency Linear Frequency Modulation Waveform Designed to Approximate Wideband Non-Linear Radar Waveforms," M. Saleh, S.-M. Omar, **E. Grivel** et P. Legrand, Elsevier Digital Signal Processing, Vol. 109, February 2021, 102884.
- [J 10] "Alternative Ways to Compare the Detrended Fluctuation Analysis and its Variants. Application to Visual Tunneling Detection", B. Berthelot, **E. Grivel**, P. Legrand, J.-M. André, P. Mazoyer, Elsevier Digital Signal Processing, Vol. 108, January 2021, 102865.
- [J 11] "Alterations in heart-brain interactions under mild stress during a cognitive task are reflected in entropy of heart rate dynamics," E. Blons, L. M. Arzac, P. Gilfriche, H. McLeod, V. Lespinet-Najib, **E. Grivel**, and V. Deschodt-Arsac, Scientific reports (Nature Publishing Group), accepté en nov. 2019, publié le 3 décembre, Vol. 9, Article number: 18190, 2019.
- [J 12] "A modified stepped frequency phase coding radar waveform designed for the frequency domain algorithm," M. Saleh, S.-M. Omar, **E. Grivel** and O. Bazzi, Digital Signal Processing, Vol. 88, pp. 101-115, May 2019.

- [J 13] "Jeffrey's divergence between autoregressive processes disturbed by additive white noises," L. Legrand, **E. Grivel**, Elsevier Signal Processing, Vol. 149, pp. 162-178, 2018.
- [J 14] "Jeffrey's divergence between ARFIMA processes," M. Saleh, **E. Grivel**, and S.-M. Omar, Elsevier Digital Signal Processing, Vol. 82, pp. 175-186, 2018.
- [J 15] "Interpreting the Asymptotic Increment of Jeffrey's Divergence between some Random Processes," **E. Grivel**, M. Saleh, and Samir-Mohamad Omar, Elsevier Digital Signal Processing, Vol. 75, pp. 120-133, 2018.
- [J 16] "Jeffrey's divergence between moving-average models that are real or complex, noise-free or disturbed by additive white noises," L. Legrand et **E. Grivel**, Elsevier Signal Processing, Vol. 131, Issue C, pp. 350-363, 2017.
- [J 17] "Bayesian Non-Parametric Methods for Dynamic State-Noise Covariance Matrix Estimation: Application to Target Tracking," C. Magnant, A. Giremus, **E. Grivel**, L. Ratton, B. Joseph, Elsevier Signal Processing, Vol. 127, pp. 135-150, 2016.
- [J 18] "Identification of an Autoregressive Process Disturbed by a Moving Average Noise Based on Inner-Outer Factorization," A. Abdou, F. Turcu, **E. Grivel**, R. Diversi and G. Ferré, Signal, Image and Video Processing, 2015.
- [J 19] "A Way to Design an OFDMA Base Station Receiver Disturbed by a Narrowband Interfering Cognitive Radio Signal," H. Poveda, G. Ferré and **E. Grivel**, IET Communications, 2015.
- [J 20] "Interacting Multiple Model Based Detector to Compensate Power Amplifier Distortions in Cognitive Radio," M. Ben Mabrouk, G. Ferré, **E. Grivel** and N. Deltimple, IEEE Trans. On Communication, Vol. 63, n°5, pp. 1580-1593, 2015.
- [J 21] "Jeffrey's Divergence for State-Space Model Comparison," C. Magnant, **E. Grivel**, A. Giremus, B. Joseph, L. Ratton, Elsevier Signal Processing, 2015, Vol. 114, Septembre 2015.
- [J 22] "On Computing Jeffrey's Divergence Between Time-Varying Autoregressive Models," C. Magnant, A. Giremus et **E. Grivel**, IEEE Signal Processing Letter, Vol. 22, n°7, pp. 915-919, July 2015.
- [J 23] "A New Time-Frequency using a Tensorial Study. Applications to ISAR processing," V. Corretja, **E. Grivel**, Y. Berthoumieu, J. M. Quéllec, T. Sfez and S. Kemkemian, Elsevier Signal Processing, vol. 93, n°7, pp. 1705-2108, July 2013.
- [J 24] "Modeling of Multipath Environment Using Copulas for Particle Filtering Based GPS Navigation," V. Pereira, A. Giremus and **E. Grivel**, IEEE Signal Processing Letters, Vol. 19, n°6, pp. 360-363, June 2012.
- [J 25] "Deterministic Regression Methods for Unbiased Estimation of Time-Varying Autoregressive Parameters from Noisy Observations," H. Ijima and **E. Grivel**, Elsevier Signal Processing, Vol. 92, n°4, pp. 857-87, April 2012.
- [J 26] "Volterra Kernels Estimation from Noisy Measurements based on the LMS Algorithm or an Errors-In-Variables Method," Z. Sigrist, **E. Grivel** and B. Alcoverro, Elsevier Signal Processing. Vol. 92, n°4, pp. 1010-1020, April 2012.
- [J 27] "A Non-Pilot Aided Iterative Carrier Frequency Offset Estimator Using Optimal Filtering for an Interleaved OFDMA Uplink System," H. Poveda, G. Ferré, and **E. Grivel**, Springer Wireless Communications, Dec 2011. <http://rd.springer.com/article/10.1007/s11277-011-0480-7>
- [J 28] "Automated Parameter Estimation of the Hodgkin-Huxley Model Using Differential Evolution Algorithm: Application to Neuromimetic Analog Integrated Circuits," L. Buhry, F. Grassia, A. Giremus, **E. Grivel**, S. Renaud and S. Saighi, Neural Computation. vol. 23, n°10, pp. 2599-2625, Oct. 2011,
- [J 29] "Dual Optimal Filters for M-AR Parameter Estimation from Noisy Observations," A. Jamoos, **E. Grivel**, N. Shakerneh and H. Abdel Noor, IET Signal Processing, Vol. 5, n°5, pp. 471-479, August 2011.
- [J 30] "A Rao-Blackwellized particle filter for joint channel/symbol estimation in MC-DS-CDMA systems", A. Giremus, **E. Grivel**, J. Grolleau and M. Najim, IEEE Trans. on Communications, vol. 58, n°8, pp. 2292-2304, August 2010.
- [J 31] "Rayleigh fading channel simulator based on inner-outer factorization," F. Merchan, F. Turcu, **E. Grivel** and M. Najim, Elsevier Signal Processing, vol. 90, n°1, pp. 24-33, Jan. 2010.
- [J 32] "Errors-in-Variables for Multichannel AR Processes Estimation from Noisy Observations," J. Petitjean, **E. Grivel**, W. Bobillet and P. Roussilhe, Signal, Image and Video Processing. vol. 4, n°2, pp. 209-220, DOI: 10.1007/s11760-009-0112-9. Publication en ligne en mars 2009. Disponible en version papier en 2010.
- [J 33] "Estimation of Autoregressive Fading Channels based on Two Cross-Coupled H_∞ Filters", A. Jamoos, **E. Grivel**, N. Christov, and M. Najim, Signal, Image and Video Processing. Springer, vol. 3, n°3, pp. 209-216, 2009.
- [J 34] "Two Ways to Simulate Rayleigh Fading based on the Sinusoidal Stochastic Model," J. Grolleau, **E. Grivel** and M. Najim, IEEE Signal Processing Letter, vol. 15, pp. 107-110, 2008.
- [J 35] "Speech Enhancement Combining Optimal Smoothing and Errors-In-Variables Identification of Noisy AR Processes," W. Bobillet, R. Diversi, **E. Grivel**, R. Guidorzi, M. Najim, and U. Soverini, IEEE Trans. on Signal Processing, vol. 55, n°12, pp. 5564-5578, Dec. 2007.

- [J 36] "Errors-In-Variables based Approach for the Identification of AR Time-Varying Fading Channels," A. Jamoos, **E. Grivel**, W. Bobillet and R. Guidorzi, IEEE Signal Processing Letters, vol. 14, n°11, pp. 793-796, Nov. 2007.
- [J 37] "Dual H_{∞} Algorithms for Signal Processing, Application to Speech Enhancement," D. Labarre, **E. Grivel**, M. Najim, and N. Christov, IEEE Trans. on Signal Processing, vol. 55, n°11, pp. 5195-5208, Nov. 2007.
- [J 38] "Consistent Estimation of Autoregressive Parameters from Noisy Observations based on Two Interacting Kalman Filters," D. Labarre, **E. Grivel**, Y. Berthoumieu, E. Todini and M. Najim, Signal Processing, vol. 86, n°10, pp. 2863-2876, Oct. 2006.
- [J 39]* "Speech Enhancement as a Realization Issue," **E. Grivel**, M. Gabrea and M. Najim, Signal Processing, vol. 82, n°12, pp. 1963-1978, Dec. 2002.
- [J 40]* "A Single Microphone Kalman Filter-based Noise Canceller," M. Gabrea, **E. Grivel** and M. Najim, IEEE Signal Processing Letters, pp. 55-57, Mars 1999.

Journal paper -in French- (1)

- [FJ 1] "STAP fondé sur une modélisation autorégressive (AR) des interférences : estimation des paramètres AR par filtrage de Kalman," J. Petitjean et **E. Grivel**, revue française Traitement du signal. Vol. 28, n°1-2, pp.203-229, 2011.

Papers accepted in international conferences with peer review and proceedings

- [C 1] "Selecting Transmission Entities of an IM-Based MIMO OFDM DFRC System by Using Pareto Front," S. Bhogavalli, **E. Grivel**, K. V. S. Hari and V. Corretja, IEEE Radar Conf 2024, Denver.
- [C 2] "Null or linear-phase filters for the derivation of a new variant of the MSE," **E. Grivel**, B. Berthelot, P. Legrand, G. Colin, EUSIPCO 2023, Helsinki.
- [C 3] "Waveform Design to Improve the Estimation of Target Parameters Using the Fourier Transform Method in a MIMO OFDM DFRC System," S. Bhogavalli, **E. Grivel**, K. V. S. Hari and V. Corretja, ICASSP 2023, Rhodes.
- [C 4] "Expressions and Properties of the Shannon, Rényi, Sharma-Mittal and Tsallis Cross-Entropies for Gaussian ARMA Processes," **E. Grivel**, EUSIPCO 2022, Belgrade.
- [C 5] "Studying Three Families of Divergences to Compare Wide-Sense Stationary Gaussian Arma Processes," **E. Grivel**, IEEE ICASSP 2022, Singapur.
- [C 6] "New variants of DFA based on loess and lowess methods: generalization of the detrending moving average," B. Berthelot, **E. Grivel**, P. Legrand, ICASSP 2021, Totonto (Canada).
- [C 7] "Chernoff, Bhattacharyya, Rényi and Sharma-Mittal divergence analysis for Gaussian stationary ARMA processes," **E. Grivel**, GSI 2021.
- [C 8] "Regularized DFA To Study the Gaze Position Of An Airline Pilot," B. Berthelot, **E. Grivel**, P. Legrand, J.-M. André, P. Mazoyer, EUSIPCO 2020, Amsterdam (Netherlands).
- [C 9] "Sea Target Classification Based On An a Priori Motion Model, J. Bondu, **E. Grivel**, A. Giremus, P. Legrand, V. Corretja, M. Pommier, EUSIPCO 2020, Amsterdam (Netherlands).
- [C 10] "Diversifying the Processing Chain of the Modified Stepped Frequency Radar Waveform Combined with Pulse Compression Techniques, M. Saleh, S.-M. Omar, **E. Grivel**, IEEE RadarConf20, Florence (Italy).
- [C 11] "Self-affinity of an Aircraft Pilot's Gaze Direction as a Marker of Visual Tunneling," B. Berthelot, P. Mazoyer, S. Egea, J. M. André, **E. Grivel** et P. Legrand, SAE Aerotech, Bordeaux (France).
- [C 12] "2D Fourier Transform Based Analysis Comparing the DFA with the DMA, B. Berthelot, **E. Grivel**, P. Legrand, M. Donias, J. M. André, P. Mazoyer, T. Ferreira, EUSIPCO 2019 - 27th European Signal Processing Conference, A Coruna (Spain).
- [C 13] "Filtering-based Analysis Comparing the DFA with the CDFA for Wide Sense Stationary Processes," B. Berthelot, **E. Grivel**, P. Legrand, J. M. André, P. Mazoyer, T. Ferreira, EUSIPCO 2019 - 27th European Signal Processing Conference, A Coruna (Spain).
- [C 14] "Properties of the Cross Entropy between ARMA Processes," **E. Grivel**, GSI 2019, Toulouse (France)
- [C 15] "Asymptotic Kullback-Leibler Increment to Characterize Experiment-Induced Stress," E. Blons, **E. Grivel**, V. Deschodt-Arsac et V. Lespinet ICASSP 2019.
- [C 16] "Exacerbated Psycho-physiological Response to Mild Stress Exposure in Middle-aged People," E. Blons, V. Lespinet-Najib, P. Gilfriche, L. M. Arsac, **E. Grivel** et V. Deschodt-Arsac, EXPERIMENTAL BIOLOGY 2019.
- [C 17] "A Comparative Study of Orthogonal Moments for Micro-Doppler Classification," S. Machhour, **E. Grivel**, P. Legrand, V. Corretja et C. Magnant, EUSIPCO 2018.
- [C 18] "An Hierarchical LMB/PHD Filter for Multiple Groups of Targets with Coordinated Motions," L. Legrand, A. Giremus, **E. Grivel**, L. Ratton, B. Joseph et C. Magnant, FUSION 2018.
- [C 19] "Generative model and associated metric for coordinated-motion target groups," L. Legrand, A. Giremus, Audrey, **E. Grivel**, L. Ratton et B. Joseph, ICASSP 2018.
- [C 20] "Jeffrey's divergence between Fractionally Integrated White Noises," M. Saleh, **E. Grivel**, and S.-M. Omar, SSP 2018.

- [C 21] "Rényi Divergence to compare Moving Average Processes," F. Merchan, **E. Grivel**, and R. Diversi, SSP 2018.
- [C 22] "Process comparison combining signal power ratio and Jeffrey's divergence between unit-power signals," **E. Grivel** et L. Legrand, GSI 2017.
- [C 23] "Jeffrey's divergence Between Autoregressive Moving-Average processes," L. Legrand, **E. Grivel** and A. Giremus, EUSIPCO 2017.
- [C 24] "Jeffrey's Divergence Between Complex-Valued Sinusoidal Processes," **E. Grivel**, M. Saleh and S.-M. Omar, EUSIPCO 2017.
- [C 25] "Comparing a Complex-Valued Sinusoidal Process with an Autoregressive Process Using Jeffrey's Divergence," **E. Grivel**, M. Saleh and S.-M. Omar, EUSIPCO 2017.
- [C 26] "ARMA-model identification from noisy observations based on a two-step errors-in-variables approach," R. Diversi, **E. Grivel** and F. Merchan, IFAC 2017.
- [C 27] "Bernoulli filter based algorithm for joint target tracking and classification in a cluttered environment," L. Legrand, A. Giremus, **E. Grivel**, L. Ratton et B. Joseph, ICASSP 2017.
- [C 28] "Jeffrey's divergence between moving-average and autoregressive models, L. Legrand et **E. Grivel**, ICASSP 2017.
- [C 29] "Evaluating dissimilarities between two moving-average models: a comparative study between Jeffrey's divergence and Rao distance," L. Legrand and **E. Grivel**, EUSIPCO 2016.
- [C 30] "Analysis of a GLRT for the Detection of an Extended Target," T. Rouffet, **E. Grivel**, C. Enderli, B. Joseph, S. Kemkemian, IEEE RADARconf '16, Philadelphie, Mai 2016.
- [C 31] "Multi-target Tracking Using a PHD-based Joint Tracking and Classification Algorithm," C. Magnant, A. Giremus, **E. Grivel**, L. Ratton and B. Joseph, IEEE RADARconf '16, Philadelphie, Mai 2016.
- [C 32] "Errors-In-Variables Identification of Noisy Moving Average Models," A. Youcef, R. Diversi and **E. Grivel**, EUSIPCO 2015, Septembre 2015.
- [C 33] "DPM-Based Bayesian Nonparametric Method For Markov Switching Process Estimation," C. Magnant, A. Giremus, **E. Grivel**, L. Ratton and B. Joseph, EUSIPCO 2015, Septembre 2015.
- [C 34] "Classifying Autoregressive Models Using Dissimilarity Measures: A Comparative Study," C. Magnant, **E. Grivel**, A. Giremus, B. Joseph and L. Ratton, EUSIPCO 2015, Septembre 2015.
- [C 35] "Compensating Power Amplifier Distortion In Cognitive Radio System With Adaptive IMM," M. Ben Mabrouk, **E. Grivel**, C. Magnant, G. Ferré et N. Deltimple, EUSIPCO 2015, Septembre 2015.
- [C 36] "Joint Tracking and Classification Based on Kinematic and Target Extent Measurements," C. Magnant, A. Giremus, **E. Grivel**, L. Ratton and B. Joseph, FUSION 2015, Washington, USA, Juillet 2015.
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