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I am a mathematical engineer, endeavouring to solve practical problems by possibly new theories with deep impact beyond the original issue. I followed an industrial career as an engineer from 1987 till 2002. But my real vocation has always been research in mathematics. For familial reasons, I could not do a PhD just after my engineering degree in 1986. Instead, I wrote and defended a PhD in 1997, beside my working hours as an engineer, because I had in mind that a day or another, I could become an academic researcher.

Specifically, I graduated from Telecom Bretagne (Brest, France) in 1986 and from the University of Rennes (France) in 1997 (Ph.D.). From 1987 until 2000, I was with Thales. In particular, between 1990 and 1998, I was with Thales Avionics, where my engineering research concerned speech processing for applications to speech recognition systems embedded in military fast jet cockpits. From 1998 to 2000, I was with Thales Nederland where I worked on the detection of radar targets in sea clutter. In September 2000, I joined Altran Technologies Nederland as a senior consultant. Since September 2002, I am with Institut Telecom, where I am currently Professor at IMT Atlantique (formerly, Telecom Bretagne).

During my industrial career, I got the opportunity to face various signal processing applications (speech, radar, communications, etc). As a researcher, in addition to these applications, I dealt with physiological signals for biomedical applications. This multiplicity was by no means a wandering but a true enrichment. In particular, my experience in so many different applications of statistical signal processing led me to notice and deem that prior knowledge on the signals at stake is often too poor in practice to allow for standard approaches. All my ideas actually originate from this observation, which prompted me to seek new statistical signal processing methods to cope with such situations. The following CV and track record illustrate this thought progression.

I am also strongly involved in teaching activities, considering that education and research are indivisible. I strive to give students the opportunity to keep in touch with the most advanced achievements in my domain and to hone their critical sense by confronting usual concepts to new ones. I published *Probabilités pour l'ingénieur: des fondements aux calculs théoriques*, co-authored with Christophe Sintès, Hermes Science Publications, 2014. I am a member of the teaching team of the MOOC « Statistiques pour l'ingénieur » <https://www.fun-mooc.fr/courses/course-v1:MinesTelecom+04008+session5/about>. I am co-head of the new curriculum “Mathematical and Computational Engineering” (MCE) at IMT Atlantique, as well as of the MCE new core course “Introduction to Machine Learning”.

Notes:

- (i) *Telecom Bretagne and École des Mines de Nantes merged in January 2017 to form a new school, IMT Atlantique. The CV refers to either Telecom Bretagne or IMT Atlantique, depending on the year reference.*
- (ii) *Professors at IMT Atlantique (formerly, Telecom Bretagne) are ½ FTE researchers and ½ FTE teachers.*

EDUCATION

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|------|---|
| 2007 | “Accreditation (habilitation) to conduct researches” delivered by Université de Bretagne Occidentale (UBO), Telecom Bretagne, Brest, France. |
| 1997 | PhD in Signal Processing & Telecommunications, University of Rennes I, Rennes, France “ Analysis of locally-stationary signals: wavelet decompositions and detection of significant coefficients ”. Supervisors: Alain Glavieux & Roger Gay; Referees: Jean-Louis Lacoume, Yves Meyer |
| 1986 | Engineering Degree, Telecom Bretagne, Brest, France |

CURRENT POSITION

2008 –2019 Professor, IMT Atlantique, Dept. Signal & Communications, Brest, France

PREVIOUS POSITIONS

- 2002 – 2008 *Associate Professor*, Telecom Bretagne, Dept. Signal & Communications, Brest, France
- 2000 – 2002 *Senior Consultant*, Altran Technologies Nederland B.V., The Netherlands: Creation of a competency centre in applied mathematics (prospects, technological proposals, consultancy supervision)
- 1998 – 2000 *Radar Signal Processing Researcher*, Thales Nederland B.V. (formerly Signaal), The Netherlands: detection of small radar targets in sea cluster
- 1990 – 1998 *Expert Research Engineer*, Thales Avionics, Bordeaux, France: Speech processing & recognition for applications embedded in fast-jets
- 1988 – 1990 *Research Engineer*, Thales Avionics, Valence, France: Design and test of noise estimation and signal detection algorithms in magnetometrics.
- 1987 – 1988 *Research Engineer*, Thales Communications, Gennevilliers, France: Electronic warfare

• FELLOWSHIPS AND AWARDS

- 1995 Winner of the Sextant Avionics Technological Innovation Prize (Air & Cosmos, No. 1500, January 1995)

SUPERVISION OF GRADUATE STUDENTS, POSTDOCTORAL FELLOWS AND ENGINEERS

- 2002 – 2019 *Academic supervisors* for 16 PhD students, 20 Master Students and 3 post-docs at Telecom Bretagne/ IMT Atlantique, Dept. Signal & Communications, France. Among the 16 supervised PhDs, 4 have an academic career, 9 work for industry, 3 are currently under my supervision and one opted for a completely different career. Among the 3 post docs, one pursued an academic career, the other two working for the industry.
- 2000 – 2002 *When working on consultancy*, I mentored 4 consultants in engineering for Altran Technologies Nederlands B.V
- 1990 – 2000 *When working for Thales as Research Engineer*, I mentored 5 research engineers, one PhD student who defended in 1998, 10 trainees, 4 engineers during their military service as scientists of the French army

TEACHING ACTIVITIES

- 2019 – Probability and Statistics, IMT Atlantique, France: Lectures & Tutorials
- 2019 – Distribution theory, IMT Atlantique, France: Tutorials
- 2016 – 2019 Statistical Signal Processing, IMT Atlantique, France: Lectures & Tutorials
- 2014 – 2018 Professor, Statistical Signal Processing, Université de Bretagne Occidentale (UBO), France : Lectures & Tutorials
- 2002 – 2016 Measure Theory and Integration, IMT Atlantique, France: Lectures & Tutorials
- 2002 – 2018 Probability Theory and Applications, IMT Atlantique, France: Lectures & Tutorials
- 2002 – Engineering & Research projects: 1 per year on average

ORGANISATION OF SCIENTIFIC MEETINGS

- 2004 ISIVC 2004: 2nd International Symposium on Image/Video Communications over fixed and mobile networks, July 7-9 2004, Brest, France, Organization committee, 250 attendees
- 2005 ASMDA 2005: XIth International Symposium on Applied Stochastic Models and Data Analysis (ASMDA 2005), 17-20 May 2005, Organization committee, 200 attendees
- 2006 37th meeting of the European Mathematical Psychological Group (EMPG 2006), September 11-13 2006, Brest, France, 50 attendees

INSTITUTIONAL RESPONSIBILITIES

- 2019 – *Co-organiser and head of the new curriculum “Mathematical and Computational Engineering”* (MCE). The MCE curriculum involves 8 course units of 40 hours each: 3 core

- courses, 4 elective courses and 1 free course.
- 2019 – Co-organizer and head of the new core course “**Introduction to Machine Learning**” in the MCE curriculum (120 students in 2019)
- 2008- 2016 Leader of the research team CNRS UMR 6285 Lab-STICC/CID/TOMS. The team involves 21 full-time researchers (<https://www.labsticc.fr/en/teams/m-571-toms.htm>) on the modelling, processing and analysis of signals, images, time series. Application fields are sea & environment monitoring, network security and management, health monitoring and tele-detection.
- 2002 – 2018 Responsible for the teaching curriculum on probability and its applications (25 hours, 150 students): lead the pedagogical team, organize, define the contents and provide the material of the courses and tutorials, give the courses and tutorials with the other team members.
- 2002 – Member of the selection committees for 6 hirings in the Signal & Communications Department, IMT Atlantique, Brest, France
- 2002 – 2008 Responsible of the “*Mastère spécialisé*” Systems of Digital Communications. 5 students per year on average who followed a dedicated curriculum combining two engineering specialities taught at IMT Atlantique. Students were graduated engineers with various age and experience who were wishing to make evolve their career by acquiring new knowledge.

REVIEWING ACTIVITIES

- 2002 – Regular reviewer for international leading journals and conferences in signal processing: IEEE Transactions on Signal Processing / IEEE Letters on Signal Processing/ Signal Processing / IEEE Transactions on Information Theory/ ICASSP, EUSIPCO

MEMBERSHIPS OF SCIENTIFIC SOCIETIES AND WORKING GROUPS

- 2008 – *IEEE Member*
- 1995 – 1998 *Member of the NATO STO Working Group WG25 on Alternative Control Technologies*
- 1993 – 1998 *Member of the joint ESCA - NATO RSG10 on Applications of Speech Technology*

SELECTED INVITED TALKS

- ENS Cachan (FRANCE), Department of Mathematics, Seminar "Panorama de la Recherche": **Towards new mathematical foundations of biological systems**, 2017
- Syracuse University (NY, USA), Department of Electrical Engineering and Computer Science, host: Prof. P.K. Varshney:
 - **2017: Decentralized Clustering for Collaborative Teams of Drones and Robots**, 2017
 - **2016: From engineering issues to universal optimal tests**
- University Pierre & Marie Curie – Sorbonne Universités (Paris, FRANCE), Integrative Immunology: Differentiation, Diversity, Dynamics (I2D3), host: Dr. V. Thomas Vaslin: **From wiring diagrams of dynamical systems & nonparametric statistical signal processing to molecular biology**, 2016
- University of Nice Sophia Antipolis (Nice, FRANCE), I3S, host: Prof. L. Fillatre: **Random Distortion Testing (RDT) and applications**, 2014
- University Savoie Mont Blanc (Annecy, FRANCE), LISTIC, host: Ass. Prof. A. Atto: **Random Distortion Testing (RDT) and applications**, 2014
- Sony, (Stuttgart, Germany), host: Dr. T. Kemp: **Weak-sparseness and random distortion testing in statistical signal processing applications**, 2014
- Université Paris-Est Créteil (Créteil, FRANCE), LAMA, host : Profs. S. Jaffard & S. Seuret, SCAM): **Robust statistical inference and sparse transforms: results, links and perspectives**, 2011
- Thales Underwater Systems (Brest, FRANCE), host: Dr. N. Josse: **Sparsity hypotheses for robust estimation of the noise spectrum in various signal processing applications**, 2010

MAIN INDUSTRIAL COLLABORATIONS

- 2016 – 2018 Sensup & Mer Agitée: Innovative LiDAR solutions for race sailing boats (Project Windfield supported by Region Bretagne (France) and European Regional Development Fund (ERDF).)
- 2015 – 2018 Sercel: Classification of sea mammals
- 2013 Oxy'Nov: Early detection of organ failure
- 2006 – 2010 Thales Airborne Systems : Detection of radar targets in sea clutter

Journal papers

1. Prashant Khanduri, Dominique Pastor, Vinod Sharma, Pramod Varshney. Sequential Random Distortion Testing of Non-Stationary Processes. *IEEE Transactions on Signal Processing*, Institute of Electrical and Electronics Engineers, 2019, 67 (21), pp. 5450 – 5462, ([10.1109/TSP.2019.2940124](https://doi.org/10.1109/TSP.2019.2940124)), ([hal-02280166](https://hal.archives-ouvertes.fr/hal-02280166))
2. Prashant Khanduri, Dominique Pastor, Vinod Kumar Sharma, Pramod Varshney. Truncated Sequential Non-Parametric Hypothesis Testing Based on Random Distortion Testing. *IEEE Transactions on Signal Processing*, Institute of Electrical and Electronics Engineers, 2019, 67 (15), pp.4027-4042. ([10.1109/TSP.2019.2923140](https://doi.org/10.1109/TSP.2019.2923140)). ([hal-02173094](https://hal.archives-ouvertes.fr/hal-02173094))
3. Erwan Beurier, Dominique Pastor, David Spivak. Memoryless systems generate the class of all discrete systems. *International Journal of Mathematics and Mathematical Sciences*, Hindawi Publishing Corporation, vol. 2019, Article ID 6803526, 2019. <https://doi.org/10.1155/2019/6803526>, <https://www.hindawi.com/journals/ijmms/2019/6803526/>, <https://www.hindawi.com/journals/ijmms/contents/>, ([hal-02194267](https://hal.archives-ouvertes.fr/hal-02194267))
4. Vincent Gripon, Bastien Padeloup, Grégoire Mercier, Dominique Pastor, Michael Rabbat. Characterization and Inference of Graph Diffusion Processes From Observations of Stationary Signals. *IEEE transactions on Signal and Information Processing over Networks*, IEEE, 2018, 4 (3), pp.481 - 496. ([10.1109/TSIPN.2017.2742940](https://doi.org/10.1109/TSIPN.2017.2742940)). ([hal-01875916](https://hal.archives-ouvertes.fr/hal-01875916))
5. Thomas Guilment, François-Xavier Socheleau, Dominique Pastor, Simon Vallez. Sparse Representation-Based Classification of Mysticete Calls. *Journal of the Acoustical Society of America*, Acoustical Society of America, 2018, 144 (3), pp.1550. ([10.1121/1.5055209](https://doi.org/10.1121/1.5055209)). ([hal-01891652](https://hal.archives-ouvertes.fr/hal-01891652))
6. Dominique Pastor, François-Xavier Socheleau. Random distortion testing with linear measurements. *Signal Processing*, Elsevier, 2018, 145, pp.116 - 126. ([hal-01736179](https://hal.archives-ouvertes.fr/hal-01736179))
7. van Khanh Mai, Dominique Pastor, Abdeldjalil Aissa El Bey, Raphaël Le Bidan. Semi-Parametric Joint Detection and Estimation for Speech Enhancement based on Minimum Mean Square Error. *Speech Communication*, Elsevier : North-Holland, 2018, 102, pp.27-38. ([10.1016/j.specom.2018.05.005](https://doi.org/10.1016/j.specom.2018.05.005)). ([hal-01817262](https://hal.archives-ouvertes.fr/hal-01817262))
8. Bastien Padeloup, Vincent Gripon, Grégoire Mercier, Dominique Pastor, Michael Rabbat. Characterization and Inference of Graph Diffusion Processes from Observations of Stationary Signals. *IEEE transactions on Signal and Information Processing over Networks*, IEEE, 2017, PP (99), ([10.1109/TSIPB.2017.2742940](https://doi.org/10.1109/TSIPB.2017.2742940)). ([hal-01759090](https://hal.archives-ouvertes.fr/hal-01759090))
9. Abdeldjalil Aissa El Bey, Dominique Pastor, Si Mohamed Aziz Sbai, Yasser Fadlallah. Sparsity-based Recovery of Finite Alphabet Solutions to Underdetermined Linear Systems. *IEEE Transactions on Information Theory*, Institute of Electrical and Electronics Engineers, 2015, 61 (4), pp.2008 - 2018. ([10.1109/TIT.2015.2399914](https://doi.org/10.1109/TIT.2015.2399914)). ([hal-01194517](https://hal.archives-ouvertes.fr/hal-01194517))
10. van Khanh Mai, Dominique Pastor, Abdeldjalil Aissa El Bey, Raphaël Le Bidan. Robust Estimation of Non-Stationary Noise Power Spectrum for Speech Enhancement. *IEEE Transactions on Audio, Speech and Language Processing*, Institute of Electrical and Electronics Engineers, 2015, 23 (4), pp.670 - 682. ([10.1109/TASLP.2015.2401426](https://doi.org/10.1109/TASLP.2015.2401426)). ([hal-01216071](https://hal.archives-ouvertes.fr/hal-01216071))
11. Yasser Fadlallah, Abdeldjalil Aissa El Bey, Karine Amis Cavalec, Dominique Pastor, Ramesh Pyndiah. New Iterative Detector of MIMO Transmission Using Sparse Decomposition. *IEEE Transactions on Vehicular Technology*, Institute of Electrical and Electronics Engineers, 2015, 64 (8), pp.3458 - 3464. ([10.1109/TVT.2014.2360687](https://doi.org/10.1109/TVT.2014.2360687)). ([hal-01197389](https://hal.archives-ouvertes.fr/hal-01197389))
12. François-Xavier Socheleau, Dominique Pastor. Testing the Energy of Random Signals in a Known Subspace: An Optimal Invariant Approach. *IEEE Signal Processing Letters*, Institute of Electrical and Electronics Engineers, 2014, 21 (10), pp.1182-1186. ([hal-01004806](https://hal.archives-ouvertes.fr/hal-01004806))
13. François-Xavier Socheleau, Dominique Pastor, Mathieu Duret. On Symmetric Alpha-Stable Noise After Short-Time Fourier Transformation. *IEEE Signal Processing Letters*, Institute of Electrical and Electronics Engineers, 2013, 20 (5), pp.455-458. ([hal-00802090](https://hal.archives-ouvertes.fr/hal-00802090))
14. Dominique Pastor, Quang Thang Nguyen. Random Distortion testing and optimality of thresholding testes. *IEEE Transactions on Signal Processing*, Institute of Electrical and Electronics Engineers, 2013, 61 (16), pp.4161 - 4171. ([hal-00952461](https://hal.archives-ouvertes.fr/hal-00952461))

15. Quang Thang Nguyen, Dominique Pastor, Erwan l'Her. Automatic detection of AutoPEEP during controlled mechanical ventilation. *BioMedical Engineering OnLine*, BioMed Central, 2012. ([hal-00724663](#))
16. Quang-Thang Nguyen, Dominique Pastor, Erwan l'Her. Automatic detection of AutoPEEP during controlled mechanical ventilation.. *BioMedical Engineering OnLine*, BioMed Central, 2012, 11 (1), pp.32. ([10.1186/1475-925X-11-32](#)). ([inserm-00771769](#))
17. Dominique Pastor, François-Xavier Socheleau. Robust Estimation of Noise Standard Deviation in Presence of Signals with Unknown Distributions and Occurrences. *IEEE Transactions on Signal Processing*, Institute of Electrical and Electronics Engineers, 2012, 60 (4), pp.1545-1555. ([10.1109/TSP.2012.2184534](#)). ([hal-00684402](#))
18. Si Mohamed Aziz Sbai, Abdeldjalil Aissa El Bey, Dominique Pastor. Contribution of Statistical Tests to Sparseness-Based Blind Source Separation. *Eurasip Journal on Applied Signal Processing*, Hindawi Publishing Corporation, 2012, 2012 (169), ([10.1186/1687-6180-2012-169](#)). ([hal-00739565](#))
19. Cong Thanh Do, Dominique Pastor, André Goalic. A novel framework for noise robust ASR using Cochlear implant-like spectrally reduced speech. *Speech Communication*, Elsevier : North-Holland, 2012, 54 (1), pp.119 - 133. ([10.1016/j.specom.2011.07.006](#)). ([hal-00739609](#))
20. Abdourrahmane Atto, Dominique Pastor, Grégoire Mercier. Wavelet Shrinkage: Unification of Basic Thresholding Functions and Thresholds. *Signal, Image and Video Processing*, Springer Verlag, 2011, 5 (1), pp.11-28. ([10.1007/s11760-009-0139-y](#)). ([hal-00732360](#))
21. François-Xavier Socheleau, Dominique Pastor, Abdeldjalil Aissa El Bey. Robust statistics based noise variance estimation : application to wideband interception of non-cooperative communications. *IEEE Transactions on Aerospace and Electronic Systems*, Institute of Electrical and Electronics Engineers, 2011, 47 (1), pp.746 - 755. ([10.1109/TAES.2011.5705706](#)). ([hal-00632791](#))
22. Quang Thang Nguyen, Ronan Fablet, Dominique Pastor. Protein interaction hotspot identification using sequence-based frequency-derived features. *IEEE Transactions on Biomedical Engineering*, Institute of Electrical and Electronics Engineers, 2011. ([hal-00609247](#))
23. Cong Thanh Do, Dominique Pastor, André Goalic. On normalized mean square error analysis of speech fundamental frequency in the cochlear implant-like spectrally reduced speech. *IEEE Transactions on Biomedical Engineering*, Institute of Electrical and Electronics Engineers, 2010, 57 (3), pp.572 - 577. ([10.1109/TBME.2009.2031097](#)). ([hal-00472883](#))
24. Cong Thanh Do, Dominique Pastor, André Goalic. On the recognition of cochlear implant-like spectrally reduced speech with MFCC and HMM-based ASR. *IEEE Transactions on Audio, Speech and Language Processing*, Institute of Electrical and Electronics Engineers, 2010, 18 (5), ([10.1109/TASL.2009.2032945](#)). ([hal-00450188](#))
25. Emmanuel Thepie Fapi, Dominique Pastor, Christophe Beaugeant, Hervé Taddei. Acoustic echo cancellation embedded in smart transcoding algorithm between 3GPP AMR-NB modes. *Journal of Electrical and Computer Engineering*, Hindawi Publishing Corp., 2010, pp.Art. n°41. ([10.155/2010/90269](#)). ([hal-00515363](#))
26. Abdourrahmane Atto, Dominique Pastor, Grégoire Mercier. Wavelet Packets of fractional Brownian motion: Asymptotic Analysis and Spectrum Estimation. *IEEE Transactions on Information Theory*, Institute of Electrical and Electronics Engineers, 2009, 56 (9), pp.4741-4753. ([10.1109/TIT.2010.2053865](#)). ([hal-00409479](#))
27. Abdourrahmane Atto, Dominique Pastor. Central Limit Theorems for Wavelet Packet Decompositions of Stationary Random Processes. *IEEE Transactions on Signal Processing*, Institute of Electrical and Electronics Engineers, 2009, 58 (2), pp.896-901. ([10.1109/TSP.2009.2031726](#)). ([hal-00241849v3](#))
28. Asmaa Amehraye, Dominique Pastor, Ahmed Tamtaoui, Driss Aboutajdine. From maskee to audible noise in perceptual speech enhancement. *International journal of signal processing (IJSP)*, 2009, 5 (2), pp.93 - 96. ([hal-02135653](#))
29. Abdourrahmane Atto, Dominique Pastor, Grégoire Mercier. Smooth Adaptation by Sigmoid Shrinkage. *EURASIP Journal on Image and Video Processing*, Springer, 2009, pp.532312. ([10.1155/2009/532312](#)). ([hal-00732347](#))
30. Abdourrahmane Atto, Dominique Pastor, Grégoire Mercier. Detection threshold for non-parametric estimation. *Signal, Image and Video Processing*, Springer Verlag, 2008, 2 (3), pp.207-223. ([10.1007/s11760-008-0051-x](#)). ([hal-00732333](#))
31. Dominique Pastor. A theoretical result for processing signals that have unknown distributions and priors in white Gaussian noise. *Computational Statistics and Data Analysis*, Elsevier, 2008, 52 (6), pp.3167 - 3186. ([10.1016/j.csda.2007.10.011](#)). ([hal-02135918](#))

32. Dominique Pastor, Asmaa Amehraye. Algorithms and applications for estimating the standard deviation of AWGN when observations are not signal-free. *Journal of Computers (JCP)*, 2007, 2 (7), pp.1 - 10. [\(hal-02136597\)](#)
33. Abdourrahmane Atto, Dominique Pastor, Alexandru Isar. On the Statistical Decorrelation of the Wavelet Packet Coefficients of a Band-Limited Wide-Sense Stationary Random Process. *Signal Processing*, Elsevier, 2007, 87 (10), pp.2320-2335. [\(10.1016/j.sigpro.2007.03.014\)](#). [\(hal-00732481\)](#)
34. Safaa Jarifi, Dominique Pastor, Olivier Rosec. A fusion approach for automatic speech segmentation of large corpora with application to speech synthesis. *Speech Communication*, Elsevier : North-Holland, 2007, 50 (1), pp.67. [\(10.1016/j.specom.2007.07.001\)](#). [\(hal-00499192\)](#)
35. Dominique Pastor. On the coverage probability of the Clopper-Pearson confidence interval. *Buletinul Științific al Universității "Politehnica" din Timișoara, Seria ELECTRONICĂ și TELECOMUNICAȚII, Transactions on Electronics and Communications*, 2005, 50 (64-2). [\(hal-02124494\)](#)
36. Dominique Pastor, Roger Gay, Albert Groenenboom. A sharp upper bound for the probability of error of the likelihood ratio test for detecting signals in white Gaussian noise. *IEEE Transactions on Information Theory*, Institute of Electrical and Electronics Engineers, 2002, 48 (1), pp.228-238. [\(10.1109/18.971751\)](#). [\(hal-02194866\)](#)
37. Céline Lemoine, Dominique Pastor. Démodulation cohérente par analyse multi-résolution en présence de bruit parasite coloré et gaussien. *Traitement du Signal*, Lavoisier, 1998. [\(hal-02196087\)](#)
38. Dominique Pastor, Roger Gay. Décomposition d'un processus stationnaire du second ordre . Propriétés statistiques d'ordre 2 des coefficients d'ondelettes et localisation fréquentielle des paquets d'ondelettes. *Traitement du Signal*, Lavoisier, 1995. [\(hal-02194999\)](#)

Conferences

1. Sabrina Bourmani, François-Xavier Socheleau, Dominique Pastor. Théorème de Karlin Rubin asymptotique appliqué à la détection d'un signal dans un sous-espace cône. *XXVIIème Colloque francophone de traitement du signal et des images, GRETSI 2019*, Aug 2019, Lille, France. [\(hal-02272517\)](#)
2. Sabrina Bourmani, François-Xavier Socheleau, Dominique Pastor. Asymptotic Karlin-Rubin's Theorem with Application to Signal Detection in a Subspace Cone. *27th European Signal Processing Conference, EUSIPCO 2019*, Sep 2019, Coruna, Spain. [\(hal-02272526\)](#)
3. Dominique Pastor, Erwan Beurier, Andrée Ehresmann, Roger Waldeck. Interfacing biology, category theory and mathematical statistics. *ACT 2019: Applied Category Theory Conference*, Jul 2019, Oxford, United Kingdom. [\(hal-02173115\)](#)
4. Erwan Beurier, Dominique Pastor, David Spivak. Memoryless systems generate the class of all discrete systems (Extended abstract). *ACT 2019: Applied Category Theory Conference*, Jul 2019, Oxford, United Kingdom. [\(hal-02173177\)](#)
5. Elsa Dupraz, Dominique Pastor, François-Xavier Socheleau. A statistical signal processing approach to clustering over compressed data. *ICASSP*, Apr 2018, Calgary, Canada. [\(hal-01759073\)](#)
6. Mael Bompais, Hamza Ameer, Dominique Pastor, Elsa Dupraz. the p-value as a new similarity function for spectral clustering in Sensor networks. *IEEE Statistical Signal Processing Workshop*, Jun 2018, freiburg, Germany. [\(hal-01801577\)](#)
7. Elsa Dupraz, Dominique Pastor. Decentralized clustering algorithm over compressed data. *National Conference on Information Theory and Complex Systems (TINKOS)*, Jun 2018, Belgrade, Serbia. [\(hal-01847318\)](#)
8. van Khanh Mai, Dominique Pastor, Abdeldjalil Aissa El Bey. Block Smoothed Sigmoid-Based Shrinkage in Time-Frequency Domain for Robust Audio Denoising. *9th International Symposium on Signal, Image, Video and Communications (ISIVC)*, Nov 2018, Rabat, Morocco. [\(hal-01893712\)](#)
9. van Khanh Mai, Dominique Pastor, Abdeldjalil Aissa El Bey. Joint Soft Threshold and Statistical Estimation for Speech Enhancement. *9th International Symposium on Signal, Image, Video and Communications (ISIVC)*, Nov 2018, Rabat, Morocco. [\(hal-01893685\)](#)
10. Prashant Khanduri, Dominique Pastor, Vinod Kumar Sharma, Pramod K. Varshney. On Random Distortion testing based sequential Non parametric Hypothesis Testing. *56th annual Allerton Conference on communication, control and computing*, Oct 2018, Urbana-Champaign, United States. [\(hal-01867116\)](#)

11. Prashant Khanduri, Dominique Pastor, Vinod Kumar Sharma, Pramod K. Varshney. On sequential random distortion testing of non-stationary processes. *ICASSP*, Apr 2018, Calgary, Canada. ([hal-01759074](#))
12. van Khanh Mai, Dominique Pastor, Abdeldjalil Aissa El Bey, Raphaël Le Bidan. Combined Detection and Estimation Based on Mean-Square Error Log-Spectral Amplitude for Speech Enhancement. *GRETSI 2017 : 26ème colloque du Groupement de Recherche en Traitement du Signal et des Images*, Sep 2017, Juan-Les-Pins, France. ([hal-01611344](#))
13. Safa Cherif, Dominique Pastor, Quang Thang Nguyen, Erwan l'Her. Detection of Artifacts on Photoplethysmography Signals Using Random Distortion Testing. *EMBC 2016 : 38th Annual International Conference of the IEEE Engineering in Medicine and Biology Society*, Aug 2016, Orlando, United States. pp.6214 - 6217, ([10.1109/EMBC.2016.7592148](#)). ([hal-01656076](#))
14. Bastien Padeloup, Vincent Gripon, Grégoire Mercier, Dominique Pastor. Towards a characterization of the Uncertainty cuve for graphs. *ICASSP 2016 : 41st IEEE International Conference on Acoustics, Speech and Signal Processing*, Mar 2016, Shanghai, China. pp.4558 - 4562, ([10.1109/ICASSP.2016.7472540](#)). ([hal-01574034](#))
15. Bastien Padeloup, Vincent Gripon, Dominique Pastor, Grégoire Mercier, Michael Rabbat. Characterizing graphs from diffused workshop. *GSP 2016 : Graph Signal Processing Workshop*, May 2016, Philadelphia, United States. ([hal-01598379](#))
16. Vincent Gripon, Stephen Larroque, Ehsan Sedgh Gooya, Dominique Pastor. Using Tags to Improve Diversity of Sparse Associative Memories. *COGNITIVE 2015: The Seventh International Conference on Advanced Cognitive Technologies and Applications*, Mar 2015, Nice, France. pp.1 - 7. ([hal-02115988](#))
17. Yasser Fadlallah, Abdeldjalil Aissa El Bey, Karine Amis Cavalec, Dominique Pastor. Low-complexity detector for very large and massive MIMO transmission. *SPAWC 2015 : 16th IEEE International Workshop on Signal Processing Advances in Wireless Communications*, Jun 2015, Stockholm, Sweden. pp.251 - 255, ([10.1109/SPAWC.2015.7227038](#)). ([hal-01203097](#))
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19. Vincent Gripon, Ehsan Sedgh Gooya, Dominique Pastor. Automatic face recognition using SIFT and networks of tagged neural cliques. *International Conference on Advanced Cognitive Technologies and Applications 2015*, Mar 2015, Nice, France. pp.57 - 61. ([hal-02116078](#))
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Patents

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Publication no. FR2988499 A1, Publication date : 2013-09-27
Inventors: LELLOUCHE François, L'HER Erwan, PASTOR Dominique, NGUYEN Quang-Thang
2. **Procédé de débruitage de signaux sonores, notamment pour le traitement de la parole**
Publication no. FR2771543 A1, Publication date : 1999-05-28
Inventors: PASTOR Dominique, REYNAUD Gérard
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