

Elsa Dupraz

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RESEARCH INTERESTS Channel coding, Source coding, Information theory, Machine Learning, LDPC decoders on faulty hardware, Machine Learning algorithms on faulty hardware, Learning over compressed data, DNA data storage.

TEACHING ACTIVITIES Probability, Statistics, Channel coding, Source coding, Information Theory, Machine Learning, Signal Processing, Optimization

EXPERIENCE **Associate Professor** *October 2015 – present*
IMT Atlantique, Brest, France

Habilitation to Direct Research (HDR) *October 2023*
Université de Bretagne Occidentale (UBO), Brest, France
The highest academic degree in France required to officially direct PhD thesis and also for senior academic positions (e.g., full professorship)

Post-doctoral researcher (FP7 FET Open project iRisc) *Sept. 2014 – Sept. 2015*
ETIS laboratory, ENSEA, Cergy-Pontoise, France

Post-doctoral researcher *Sept. 2014 – August 2014*
University of Arizona, Tucson, USA

PhD student *Sept. 2010 – December 2013*
University Paris-Sud, Orsay, France

Teaching assistant *January 2011 – June 2013*
Ecole Polytechnique, Palaiseau, France

EDUCATION **PhD in Applied Physics** *December 2013*

- Laboratoire des Signaux et Systèmes (CNRS, Supélec, University Paris-Sud)
- Thesis title: Source coding with uncertain side information at the decoder

Master of Advanced Systems of Radiocommunications *August 2010*

- ENS Cachan (joint degree with Supélec and University Paris-Sud)
- Thesis title: Source coding with side information and Markovian correlation noise

Bachelor degree in Electrical Engineering *August 2009*

- Department of Electrical Engineering of ENS Cachan
- Internship: realization of a fingerprint audio algorithm robust to pitch changes

RESEARCH PROJECTS **Participation to MolecularXiv, PEPR** *May. 2022 – April. 2029*
Massive data storage on synthetic DNA molecules, in collaboration with 21 partners in France

Coordinator of CoLearn, Labex Cominlabs project *Sept. 2021 – Dec. 2025*
Coding for Learning, in collaboration with INSA Rennes and INRIA Rennes

Participation to AI4Code, ANR project *October 2021 – December 2025*
AI-aided FEC code design and decoding, in collaboration with IMT Atlantique, CEA Leti, INP Bordeaux, INP-ENSEEIH, ETIS, UBS

Manager of IoTAD-CEO, International Cominlabs Chair *January 2021 – December 2024*
IoT Network Analysis and Design based on CEO Problem, International Chair led by Tadashi Matsumoto

Participation to ULERIM, IVADO project *September 2020 – August 2022*
Ultra-Low-Energy Reliable DNN Inference Using Memristive Circuits for Biomedical Applications, in collaboration with Polytechnique Montreal

Participation to DnarXiv, Labex Cominlabs project *September 2020 – August 2022*
Storing information on DNA molecules, in collaboration with INRIA Rennes, LaTim, Institute of Genetics & Development, DNA Script company

Coordinator of REFinEd, Program Samuel de Champlain *April 2020 – December 2021*
Energy-reliability tradeoff for low energy consumption artificial intelligence, in collaboration with Polytechnique Montreal (Canada)

Coordinator of EF-FEctive, ANR JCJC project *January 2018 – June 2021*
Design of Energy-Efficient LDPC codes and decoders, in collaboration with Polytechnique Montreal (Canada)

Principal investigator of InterCom, Labex Cominlabs project *Nov. 2016 – Dec. 2020*
Interactive communications and massive random access to data, in collaboration with INRIA Rennes and University Paris-Sud (France)

French coordinator of AI-EF, Thomas Jefferson fund *August 2018 – July 2020*
Reliable artificial intelligence on energy-efficient hardware, in collaboration with University of Illinois at Urbana-Champaign (USA)

French coordinator of SEED, PHC Pavle Savic *Jan. 2018 – Dec. 2019*
Secure and energy efficient distributed source coding for sensor networks, in collaboration with MISANU, Belgrade (Serbia)

Participation to COLA, Research contract *February. 2016 – January. 2017*
Non-binary LDPC codes for short-packet communications, in collaboration with Huawei, Paris (France)

SUPERVISION

Post-Docs

Ahcen Aliouet, Image compression for classification tasks, co-advised with François-Xavier Socheleau, 2023 - 2024

Alireza Tasdighi, Interactions between learning and communications, co-advised with Raphaël Le Bidan, 2020 - 2022

Khaled Alhaj Ali, Memristor-based in memory energy-efficient computing, co-advised with Amer Baghdadi and Mathieu Léonardon, 2020

Mai Quyen Pham, Graph optimization for massive random access, co-advised with Thomas Maugey and Aline Roumy, April 2019 - 2019

Zeina Mheich, Design of short-length non-binary LDPC codes, co-advised with Frederic Guilloud and Raphaël Le Bidan, 2016-2017

PhD Students

Ahmad Ismail, Deep-Learning aided design and decoding of LDPC codes, co-advised with Raphaël Le Bidan and Charbel Abdel Nour, 2022 – 2025

Aref Ezzeddine, Error-correction codes for DNA data storage, co-advised with Emmanuel Boutillon, 2022 – 2025

Ismaila Salihou Adamou, Design of multi-user communication systems for decision making, co-advised with Tadashi Matsumoto and Samir Saoudi, 2021 – 2024

Jiahui Wei, Information theory and source/channel coding for machine learning, co-advised with Philippe Mary, 2021 - 2024

Belaïd Hamoum, Error-correction codes for DNA storage, co-advised with Laura Conde-Canencia, 2019 - 2022, *Defense the 13th of December 2022*

Jonathan Kern, Energy-Efficient Machine-Learning Algorithms, co-advised with François Leduc-Primeau and Abdejdjalil Aïssa El Bey, 2019 - 2023, *Defense the 5th of May 2023*

Mohamed Yaoumi, Energy-Efficient LDPC codes and decoders, co-advised with François Leduc-Primeau and Frederic Guilloud, 2017 - 2020, *Defense the 14th of December 2020*

Fangping Ye, Source-coding based on LDPC codes for Massive Random Access, co-advised with Karine Amis, 2016 - 2019, *Defense the 2nd of December 2019*

SERVICES

Editor for IEEE Transactions on Communications, 2024 - 2027

Member of the Digital Presence Committee of IEEE ITSoc, 2022 - 2024

CONFERENCE ORGANIZATION

ISTC 2023, Brest, September 2023 (technical co-sponsorship chair)

ITW 2021, Kanazawa, Japan, September 2021 (publicity co-chair)

ISTC 2021, Montreal, September 2021 (technical co-sponsorship chair)

ISTC 2016, Brest, September 2016 (technical co-sponsorship chair)

EVENTS ORGANIZATION

GdR ISIS workshop on DNA data storage, Paris, July 2023

Special session on DNA data storage, DSP conference, Rhodes, Greece, May 2023

Special session on the design of energy-efficient error-correction codes, ISTC conference, Montreal, March 2021

Workshop on energy-efficient design of error-correction codes, Paris, April 2020

GdR ISIS workshop on energy-efficient LDPC decoders, Paris, June 2016

REVIEWS

IEEE Transactions on Information Theory, IEEE Transactions on Communications, IEEE Transactions on Wireless Communications, IEEE Communication Letters, IEEE Wireless Communication letters, IEEE Access, ISIT, ISTC, ITW, Eusipco, Globecom, IWCIT, VTC

PUBLICATIONS

JOURNAL PAPERS

J1 Jonathan Kern, Sébastien Henwood, Gonçalo Mordido, **Elsa Dupraz**, Abdeldjalil Aïssa-El-Bey, Yvon Savaria, and François Leduc-Primeau, Fast and Accurate Output Error Estimation for Memristor-Based Deep Neural Networks, *IEEE Transactions on Signal Processing*, vol. 72, pp. 1205 - 1218, February 2024

J2 Tad Matsumoto, Amin Zribi, Reza Asvadi, **Elsa Dupraz**, Wensheng Lin, Two-Stage Successive Wyner-Ziv Lossy Forward Relaying for Lossy Communications: Rate-Distortion and Outage Probability Analyses, accepted at *IEEE Transactions on Vehicular Technology*, February 2024

- J3 **Elsa Dupraz**, François Leduc-Primeau, Kui Cai, Lara Dolecek, Turning to Information Theory to Bring In-Memory Computing Into Practice, accepted at *IEEE BITS the Information Theory Magazine*, special issue on Data Storage, October 2023
- J4 Belaïd Hamoum, **Elsa Dupraz**, Channel Model and Decoder with Memory for DNA Data Storage with Nanopore Sequencing, *IEEE Access*, vol. 11, pp. 52075-52087, May 2023
- J5 Alireza Tasdighi, **Elsa Dupraz**, An End-to-End Scheme for Learning over Compressed Data Transmitted Through a Noisy Channel, *IEEE Access*, vol. 11, pp. 8254 – 8267, January 2023
- J6 Khaled Alhaj Ali, Amer Baghdadi, **Elsa Dupraz**, Mathieu Léonardon, Mostafa Rizk and Jean-Philippe Diguët, MOL-based In-Memory Computing of Binary Neural Networks, *IEEE Transactions on Very Large Scale Integration Systems*, vol. 30, no. 7, pp. 869-880, July 2022
- J7 Jonathan Kern, **Elsa Dupraz**, Abdeldjalil Aïssa-El-Bey, Lav R. Varshney, and François Leduc-Primeau, Optimizing the Energy Efficiency of Unreliable Memories for Quantized Kalman Filtering, Special issue “Machine Learning, Signal, and/or Image Processing Methods to Enhance Environmental Sensors” of MDPI journal Sensors, January 2022
- J8 **Elsa Dupraz**, Mohamed Yaoumi, Self-Corrected Belief-Propagation decoder for source coding with unknown source statistics, *IEEE Communication Letters*, vol. 25, no. 7, pp. 2133-2137, July 2021
- J9 Fangping Ye, Navid Mahmoudian Bidgoli, **Elsa Dupraz**, Aline Roumy, Karine Amis, Thomas Maugey, Bit-plane coding in extractable source coding: optimality, modeling, and application to 360° data, *IEEE Communication Letters*, vol. 25, no. 5, pp. 1412-1416, May 2021
- J10 **Elsa Dupraz**, François Leduc-Primeau, Noisy Density Evolution With asymmetric deviation models, *IEEE Transactions on Communications*, vol. 69, no. 3, pp. 1403-1416, March 2021
- J11 Mohamed Yaoumi, **Elsa Dupraz**, François Leduc-Primeau, Frederic Guilloud, Energy optimization of quantized Min-Sum decoders for protograph-based LDPC codes, *Annals of Telecommunications*, vol. 75, no 11, p. 615-621, 2020
- J12 Mai Quyen Pham, Aline Roumy, Thomas Maugey, **Elsa Dupraz**, Michel Kieffer, Optimal reference selection for random access in predictive coding schemes, *IEEE Transactions on Communications*, vol. 68, no 9, p. 5819-5833., 2020
- J13 Thomas Maugey, Aline Roumy, **Elsa Dupraz**, Michel Kieffer, Incremental coding for extractable compression in the context of Massive Random Access, *IEEE Transactions on Signal and Information Processing over Networks*, vol. 6, pp. 251-260, March 2020
- J14 Marwa Ben Abdessalem, Amin Zribi, Tadashi Matsumoto, **Elsa Dupraz**, Ammar Bouallegue, LDPC-based Joint Source Channel Coding and Decoding Strategies for single relay cooperative communications, *Elsevier Physical Communications*, vol. 38, February 2020
- J15 **Elsa Dupraz**, Aline Roumy, Thomas Maugey, Michel Kieffer, Rate-Storage Regions for Extractable Source Coding with Side Information, *Elsevier Physical Communications*, vol. 37, December 2019
- J16 Fangping Ye, **Elsa Dupraz**, Zeina Mheich, Karine Amis, Optimized Rate-Adaptive Protograph-Based LDPC Codes for Source Coding with Side Information, *IEEE Transactions on Communications*, vol. 67, no. 6, pp. 3879-3889, June 2019

- J17 **Elsa Dupraz**, David Declercq, Bane Vasic, Asymptotic Error Probability of the Gallager B Decoder under Timing Errors, *IEEE Communication Letters*, vol. 21, no 4, p. 698-701. January 2017
- J18 **Elsa Dupraz**, David Declercq, Bane Vasic, Valentin Savin, Analysis and Design of Finite Alphabet Iterative Decoders Robust to Faulty Hardware, *IEEE Transactions on Communications*, vol.63, no 8, pp.2797 - 2809 June 2015
- J19 Christiane L. Kameni Ngassa, Valentin Savin, **Elsa Dupraz**, David Declercq, Density Evolution and Functional Threshold for the Noisy Min-Sum Decoder, *IEEE Transactions on Communications*, vol.63, no 5, pp.1497 - 1509, May 2015
- J20 **Elsa Dupraz**, Valentin Savin, Michel Kieffer, Density Evolution for the Design of Non-Binary Low Density Parity Check Codes for Slepian-Wolf Coding, *IEEE Transactions on Communications*, vol.63, no 1, pp.25–36, January 2015
- J21 Francesca Bassi, Aurelia Fraysse, **Elsa Dupraz**, Michel Kieffer, *Rate-distortion bounds for Wyner-Ziv coding with Gaussian scale mixture correlation noise*, *IEEE Transactions on Information Theory*, vol. 30, no 12, pp. 7540–7546, October 2014
- J22 **Elsa Dupraz**, Aline Roumy, Michel Kieffer, Source coding with side information at the decoder and uncertain knowledge of the correlation, *IEEE Transactions on Communications*, vol. 62, no 1, pp. 269–279, January 2014

INTERNATIONAL
CONFERENCES

- C1 **Elsa Dupraz**, Ismaila Salihou Adamou, Reza Asvadi, Tadashi Matsumoto, Practical Short-Length Coding Schemes for Binary Distributed Hypothesis Testing, accepted at the International Symposium on Information Theory (ISIT) 2024
- C2 Jiahui Wei, Philippe Mary, **Elsa Dupraz**, Rate-Loss Regions for Polynomial Regression with Side Information, accepted at the *International Zurich Seminar on Information and Communication (IZS)* 2024
- C3 Ismaila Salihou Adamou, **Elsa Dupraz**, Tad Matsumoto, An Information-Spectrum Approach to Distributed Hypothesis Testing for General Sources, accepted at the *International Zurich Seminar on Information and Communication (IZS)*, 2024
- C4 Ismaila Salihou Adamou, **Elsa Dupraz**, Amin Zribi, Tad Matsumoto, Error-Exponent of Distributed Hypothesis Testing for Gilbert-Elliott Source Models, *International Symposium on Topics in Coding (ISTC)*, Brest, France, September 2023
- C5 Jeremy Nadal, Mohamed Yaoumi, **Elsa Dupraz**, Frederic Guilloud, François Leduc-Primeau, Energy Optimization of Faulty Quantized Min-Sum LDPC Decoders, *International Symposium on Topics in Coding (ISTC)*, Brest, France, September 2023
- C6 Jiahui Wei, **Elsa Dupraz**, Philippe Mary, Asymptotic and non-asymptotic rate-loss bounds for linear regression with side information, *31st European Signal Processing Conference (EUSIPCO)*, Helsinki, Finland, September 2023
- C7 Belaid Hamoum, Aref Ezzeddine, **Elsa Dupraz**, Synchronization algorithms from high-rate LDPC codes for DNA data storage, *International Conference on Digital Signal Processing (DSP)*, Rhodes, Greece, June 2023
- C8 Jonathan Kern, Sébastien Henwood, Gonçalo Mordido, **Elsa Dupraz**, Abdeldjalil Aïssa-El-Bey, Yvon Savaria, and François Leduc-Primeau, MemSE: Fast MSE Prediction for Noisy Memristor-Based DNN Accelerators, accepted at IEEE International Conference on artificial intelligent circuits and systems (AICAS), June 2022
- C9 Belaid Hamoum, **Elsa Dupraz**, Laura Conde-Canencia, A DNA Data Storage Channel Model Trained on Genomic Data with Nanopore Sequencing, accepted at the 1st International Conference on Data Storage in Molecular Media (DSMM2022), February 2022

- C10 **Elsa Dupraz**, Lav R. Varshney, and François Leduc-Primeau, Power-Efficient Deep Neural Networks with Noisy Memristor Implementation, accepted at the Information Theory Workshop (ITW), Kanazawa, Japan, 2021
- C11 Adomas Baliuka, **Elsa Dupraz**, Harald Weinfurter, Open Source LDPC-based error correction, accepted for poster presentation at QCrypt 2021, Amsterdam, The Netherlands, 2021
- C12 Jérémy Nadal, Simon Brown, **Elsa Dupraz**, and François Leduc-Primeau, Towards an Accurate High-Level Energy Model for LDPC Decoders, invited paper at the International Symposium on Topics in Coding (ISTC), Montreal, Canada, 2021
- C13 Belaid Hamoum, **Elsa Dupraz**, Laura Conde-Canencia, Dominique Lavenier, Channel Model with Memory for DNA Data Storage with Nanopore Sequencing, accepted at the International Symposium on Topics in Coding (ISTC), Montreal, Canada, 2021
- C14 Jonathan Kern, **Elsa Dupraz**, Abdeldjalil Aïssa-El-Bey, François Leduc-Primeau, Improving the Energy-Efficiency of a Kalman Filter using Unreliable Memories, accepted at International Conference on Acoustic, Speech, and Signal Processing (ICASSP), 2021
- C15 Jeremy Nadal, Mickael Fiorentino, **Elsa Dupraz**, Francois Leduc-Primeau, A Deeply Pipelined, Highly Parallel and Flexible LDPC Decoder, *IEEE International Newcas conference*, Montreal, Canada, 2020
- C16 **Elsa Dupraz**, Lav R. Varshney, Noisy In-Memory Recursive Computation with Memristor Crossbars, *International Symposium on Information Theory (ISIT)*, Los Angeles, USA, 2020
- C17 **Elsa Dupraz**, Lav R. Varshney, Energy-Efficient Machine Learning Algorithms, *Conference on Information Theory and Complex Systems (TINKOS)*, Belgrade, Serbia, October 2019
- C18 Mohamed Yaoumi, **Elsa Dupraz**, Francois Leduc-Primeau, Frederic Guilloud, Energy-Efficient Protograph-Based LDPC codes, *Conference on Information Theory and Complex Systems (TINKOS)*, Belgrade, Serbia, October 2019
- C19 Mohamed Yaoumi, François Leduc-Primeau, **Elsa Dupraz**, Frederic Guilloud, Optimization of Protograph LDPC Codes based on High-Level Energy Models, accepted at *16th International Symposium on Wireless Communication Systems (ISWCS)*, Oulu, Finland, August 2019
- C20 **Elsa Dupraz**, Lav R. Varshney, Binary Recursive Estimation on Noisy Hardware, accepted at *International Symposium on Information Theory (ISIT)*, Paris, France, July 2019
- C21 **Elsa Dupraz**, François Leduc-Primeau, François Gagnon, High-Throughput LDPC Decoding Achieved by Code and Architecture Co-Design, *International Symposium on Turbo Codes and Iterative Information Processing (ISTC)*, Hong Kong, December 2018, Invited Paper
- C22 Nicolas Grelier, Carlos Eduardo Rosar Kos Lassance, **Elsa Dupraz**, Vincent Gripon, Graph-Projected Signal Processing, *IEEE International Conference on Signal and Information Processing (GlobalSIP)*, Anaheim, USA, November 2018
- C23 Fangping Ye, Zeina Mheich, **Elsa Dupraz**, Karine Amis, Optimized Short-Length Rate-Adaptive LDPC Codes for Slepian-Wolf Source Coding, *International Conference on Telecommunication (ICT)*, Saint-Malo, France, June 2018
- C24 Mael Bompais, Hamza Ameer, Dominique Pastor, **Elsa Dupraz**, The p-value as a New Similarity Function for Spectral Clustering in Sensor Networks, *Statistical Signal Processing Workshop (SSP)*, Freiburg, Germany, June 2018

- C25 Nicolas Grelier, Carlos Eduardo Rosar Kos Lassance, **Elsa Dupraz**, Vincent Gripon, Graph-Projected Signal Processing, *Graph Signal Processing Workshop (GSP)*, Lausanne, Switzerland, June 2018
- C26 **Elsa Dupraz**, Dominique Pastor, Decentralized clustering algorithm over compressed data, *Conference on Information Theory and Complex Systems (TINKOS)*, Belgrade, Serbia, June 2018
- C27 Fangping Ye, **Elsa Dupraz**, Karine Amis, Rate-adaptive LDPC code construction for Free-Viewpoint Television, *Conference on Information Theory and Complex Systems (TINKOS)*, Belgrade, Serbia, June 2018
- C28 **Elsa Dupraz**, Dominique Pastor, François-Xavier Socheleau, A Statistical Signal Processing Approach to Clustering over Compressed Data, *International Conference on Acoustics, Speech and Signal Processing (ICASSP)*, Calgary, Canada, April 2018
- C29 Zeina Mheich, **Elsa Dupraz**, Short Length Non-binary Rate-Adaptive LDPC Codes for Slepian-Wolf Source Coding, *Wireless Communications and Networking Conference (WCNC)*, Barcelona, Spain, April 2018
- C30 **Elsa Dupraz**, K-means Algorithm over Compressed Binary Data, *Data Compression Conference (DCC)*, Utah, United States, March 2018
- C31 **Elsa Dupraz**, Thomas Maugey, Aline Roumy, Michel Kieffer, Rate-Distortion Performance of Sequential Massive Random Access to Gaussian Sources with Memory, *Data Compression Conference (DCC)*, Utah, United States, March 2018
- C32 Velimir Ilić, **Elsa Dupraz**, Bane Vasic, Generic Architectures for Uniformly Reweighted APP Decoders, *International Conference on Advanced Technologies, Systems, and Services in Telecommunications (TELSIKS)*, Nis, Serbia, October 2017, Invited Paper
- C33 **Elsa Dupraz**, Bane Vasic, David Declercq, Performance of Taylor-Kuznetsov memories under timing errors, *International Conference on Communications (ICC)*, Paris, France, May 2017
- C34 **Elsa Dupraz**, Distributed K-means over Compressed Binary Data, *National Conference on Information Theory and Complex Systems (TINKOS)*, Belgrade, Serbia, October 2016
- C35 Satish Kumar Grandhi, **Elsa Dupraz**, Christian Spagnol, Valentin Savin, Emanuel Popovici, CPE: Codeword Prediction Encoder, *European Test Symposium*, Amsterdam, Netherlands, May 2016
- C36 **Elsa Dupraz**, Valentin Savin, Satish Kumar Grandhi, Emanuel Popovici, David Declercq, Practical LDPC Encoders Robust to Hardware Noise, *International Conference on Communications (ICC)*, Kuala Lumpur, Malaysia, May 2016
- C37 **Elsa Dupraz**, David Declercq, Evaluation of the Robustness of LDPC Encoders to Hardware Noise, *BlackSeaCom*, pp 87-91, 2015, Invited Paper
- C38 **Elsa Dupraz**, D. Declercq, B. Vasic, Analysis of Taylor-Kuznetsov Memory using One-Step Majority Logic Decoder, *Information Theory and Applications Workshop (ITA)*, 2015, Invited paper
- C39 Velimir Ilic, **Elsa Dupraz**, David Declercq, Bane Vasic, Uniformly reweighted APP Decoder for memory efficient decoding of LDPC Codes, *Allerton*, pp 1228 - 1232, 2014
- C40 **Elsa Dupraz**, David Declercq, Bane Vasic, Valentin Savin, Finite Alphabet Iterative Decoders Robust to Faulty Hardware: Analysis and Selection, *International Symposium on Turbo Codes and Iterative Information Processing*, pp 107 - 111, 2014
- C41 Velimir Ilic, **Elsa Dupraz**, David Declercq, Bane Vasic, On the Memory Complexity of APP Decoders for LDPC Codes, *ICT Forum 2014*, Serbia, Invited Paper

- C42 Velimir Ilic, **Elsa Dupraz**, David Declercq, Bane Vasic, Memory Efficient APP Decoding of LDPC Codes, *National Conference on Information Theory and Complex Systems* 2014, Serbia
- C43 **Elsa Dupraz**, Aline Roumy, Michel Kieffer, Universal Wyner-Ziv coding for Gaussian sources, *International Conference on Acoustic, Speech, and Signal Processing (ICASSP)*, pp. 5132-5135, 2013
- C44 **Elsa Dupraz**, Aline Roumy, Michel Kieffer, Practical coding scheme for universal source coding with side information at the decoder, *Data Compression Conference (DCC)*, pp. 401-410, 2013
- C45 **Elsa Dupraz**, Aline Roumy, Michel Kieffer, Source coding with side information at the decoder: Models with uncertainty, performance bounds, and practical coding schemes., *International Symposium on Information Theory and its Applications (ISITA)*, pp. 170-174, 2012
- C46 **Elsa Dupraz**, Francesca Bassi, Thomas Rodet, Michel Kieffer, Distributed coding of sources with bursty correlation., *International Conference on Acoustic, Speech, and Signal Processing (ICASSP)*, pp. 2973-2976, 2012
- C47 **Elsa Dupraz**, Gael Richard, Robust frequency-based audio fingerprinting., *International Conference on Acoustic, Speech, and Signal Processing (ICASSP)*, pp. 281-284, 2010

NATIONAL
CONFERENCES

- N1 Ismaila Salihou-Adamou, **Elsa Dupraz**, Tad Matsumoto, Test d'hypothèses distribué pour des modèles de sources générales non-iid, non-stationnaires, et non-ergodiques, *Actes du GRETSI*, 2023
- N2 Jiahui Wei, **Elsa Dupraz**, Philippe Mary, Régions atteignables pour la régression linéaire sur données compressées avec information adjacente, *Actes du GRETSI*, 2023
- N3 Fangping Ye, **Elsa Dupraz**, Zeina Mheich, Karine Amis, Construction de Codes LDPC Compatibles en Rendement pour le Codage de Sources avec Information Adjacente, accepted at *Colloque GRETSI*, September 2019
- N4 Mohamed Yaoumi, **Elsa Dupraz**, François Leduc-Primeau, Frederic Guilloud, Optimisation de la Consommation d'Energie pour des Codes LDPC Construits à Partir de Protographes, accepted at *Colloque GRETSI*, September 2019
- N5 **Elsa Dupraz**, David Declercq, Bane Vasic, Stabilité des Mémoires de Taylor-Kuznetsov construites à partir d'un Décodeur LDPC de type Gallager B, *Actes du GRETSI* 2015
- N6 **Elsa Dupraz**, Aline Roumy, Michel Kieffer, Codage distribué dans des réseaux de capteurs avec connaissance incertaine des corrélations, *Actes du GRETSI* 2013
- N7 **Elsa Dupraz**, Aline Roumy, Michel Kieffer, Codage de sources avec information adjacente et connaissance imparfaite de la corrélation : le problème des cadrans., *Actes du GRETSI* 2013