

Laurent Condat — Curriculum Vitae

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Born in 1980, France. French citizen

Current position: **Senior Research Scientist** at King Abdullah University of Science and Technology (KAUST), Thuwal, Saudi Arabia. On leave from the French National Center for Scientific Research (CNRS), where I hold life-long tenure as a French civil servant.

Research area: **Large-scale continuous optimization**: deterministic and stochastic algorithms, distributed settings, applications in machine learning, signal and image processing

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1	EDUCATION	
2021	Higher Education Teaching Certificate, Harvard's Derek Bok Center for Teaching and Learning (online)	
2006	Ph.D., applied mathematics, Laboratory of Images and Signals (LIS), Grenoble Institute of Technology (INPG), Grenoble, France	
2003	Master of Research Degree (DEA), applied mathematics, Univ. Joseph Fourier, Grenoble	
2003	Master's Degree (Diplôme d'Ingénieur), computer science, Graduate School of Engineering in Applied Mathematics and Computer Sciences (ENSIMAG), Grenoble	

2 EMPLOYMENT

- 2019 – Senior Research Scientist (Research Scientist, 2019–2022) at King Abdullah University of Science and Technology (KAUST), Thuwal, Saudi Arabia
- 2023 – 2025 Affiliated with the Saudi Data & AI Authority (SDAIA) – KAUST Center of Excellence in Data Science and Artificial Intelligence (SDAIA-KAUST AI). Funded part-time affiliation
- 2008 – 2019 Chargé de Recherche (Research Scientist) of the National Center for Scientific Research (CNRS) in France, at GREYC, Caen (2008–2012) and GIPSA-Lab, Grenoble (2012–2019). On leave since Nov. 2019. Promoted to Hors Classe (Senior Research Scientist) in 2024 (honorary, while on leave)
- 2006 – 2008 Postdoctoral Research Associate at Helmholtz Zentrum München, Munich, Germany
- 2003 – 2006 Moniteur (teaching assistant) at Faculty of Mathematics, Univ. Joseph Fourier, Grenoble, France

3 DISTINCTIONS

- 2020 – In Stanford’s list of the world’s top 2% most influential scientists
- 2025 Best reviewer award at the conference AISTATS 2025
- 2025 Paper [CI58] at the conference ICLR selected as *Spotlight*
- 2024 Promoted to Chargé de recherche hors classe (senior research scientist) by the CNRS
- 2023 Meritorious Service Award from *Mathematical Programming* “in recognition of your exceptional contribution as a peer reviewer”
- 2022 Best reviewer award (top 10%) at the conference ICML 2022
- 2021 Designated as an Expert Reviewer for the conference ICML 2021 “based on high quality reviews in past Machine Learning conference and overall experience”
- 2020 Best reviewer award (top 10%) at the conference NeurIPS 2020
- 2019 Elevated to the rank of IEEE senior member by the IEEE Signal Processing Society
- 2018 – 2021 Bonus award for outstanding research (PEDR) from the CNRS
- 2014 Runner-up for the best paper award at the conference IEEE ICIP 2014
- 2007 Best PhD thesis award from Grenoble Institute of Technology (INPG)
- 2005 Best student paper award at the conference IEEE ICIP 2005

4 INVITED TALKS IN INTERNATIONAL CONFERENCES (LAST 5 YEARS)

- 2026 SIAM Conference on Optimization, Edinburgh, UK
- 2025 Conference on Advances in Continuous Optimization (EUROPT), Southampton, UK
- 2025 Plenary speaker, PKU Workshop on Optimization Theory and Methods, Beijing, China
- 2025 Plenary speaker, Workshop on Variational Analysis and Optim. (ICOVAO), Hanoi, Vietnam
- 2024 Keynote speaker, MICCAI Workshop on Distributed, Collaborative and Federated Learning (DeCAF), Marrakesh, Morocco
- 2024 Keynote speaker, TraDE-OPT Conference on Optimization for Machine Learning and Inverse Problems, Sestri Levante, Italy
- 2024 European Conference on Operational Research (EURO), Copenhagen, Denmark
- 2024 Semi-plenary speaker, Workshop on Nonsmooth Optimization and Applications (NOPTA),

Antwerp, Belgium

- 2023 Conf. of the Int. Federation of Operational Research Societies (IFORS), Santiago, Chile
- 2023 SIAM Conference on Optimization, Seattle, USA
- 2022 SIAM Conference on Imaging Science, Berlin, Germany (virtual)
- 2021 IFIP TC7 Conference on System Modelling and Optimization, Quito, Ecuador (virtual)

5 SEMINARS (LAST 5 YEARS) ---

- 2026 UESTC, Chengdu, China (School of Mathematical Sciences)
- 2025 MBZUAI, Abu Dhabi, United Arab Emirates (Department of Statistics and Data Science)
- 2025 KAUST, Thuwal, Saudi Arabia (CS graduate seminar)
- 2025 UCLouvain, Louvain-la-Neuve, Belgium (Mathematical Engineering Seminar)
- 2025 National University of Singapore, Singapore (School of Computing, CS seminar series)
- 2025 University of Cambridge, Cambridge, UK (guest lecture)
- 2025 Umeå University, Umeå, Sweden
- 2023 Center for Computational Mathematics of the Flatiron Institute, New York City, USA
- 2022 Federated Learning One World (FLOW) Seminar (international seminar series, online)
- 2022 MBZUAI, Abu Dhabi, United Arab Emirates

6 NATIONAL RESPONSIBILITIES IN FRANCE ---

- 2016 – 2019 Elected Member of Section 7 (signal and image processing, computer vision and graphics, embedded systems, robotics, control, human machine interaction, speech and language processing) of the National Committee for Scientific Research
- 2017 Expert for the High Council for Evaluation of Research and Higher Education (HCERES), member of the evaluation committee of the research center LSIS, Marseille, France
- 2016 – 2017 Jury member for the annual EEA-ISIS-GRETSI best PhD award in signal and image processing and vision

7 PARTICIPATION IN PHD COMMITTEES ---

- 2025 Examiner, PhD thesis of Nizar Bousselmi, University of Louvain, Louvain-la-Neuve, Belgium
- 2025 Opponent, PhD thesis of Ali Dadras, Umeå University, Umeå, Sweden
- 2022 Examiner, PhD thesis of Alban Gossard, University of Toulouse, Toulouse, France
- 2022 Examiner, PhD thesis of Martin Morin, Lund University, Lund, Sweden
- 2020 Rapporteur, PhD thesis of Paul Catala, PSL University, Paris, France
- 2017 Examiner, PhD thesis of Simon Labouesse, Aix-Marseille University, Marseille, France
- 2017 Examiner, PhD thesis of Miguel Simoes, University of Lisbon and Univ. Grenoble Alpes, Lisbon, Portugal
- 2016 Rapporteur, PhD thesis of Emrah Bostan, École Polytechnique Fédérale de Lausanne (EPFL), Lausanne, Switzerland
- 2016 Examiner, PhD thesis of Pauline Tan, École Polytechnique, Palaiseau, France

8 EDITORIAL ACTIVITIES

- 2025 – Senior area editor of the journal *IEEE Transactions on Signal Processing*
- 2021 – 2025 Associate editor of the journal *IEEE Transactions on Signal Processing*
- 2013 – Member of the founding editorial board and Field Chief Editor of the journal *Statistics, Optimization and Information Computing*
- 2004 – Regular reviewer for several international journals in optimization, signal and image processing

9 CONFERENCE ACTIVITIES

Organization, international events

- 2026 Member of the Scientific Committee, International Conference on Optimization and Machine Learning, Theory and Applications (ICOMaLTA-2026), Arica, Chile
- 2025 Organizer of the mini-symposium (3 talks) “Communication-Efficient methods for distributed optimization and federated learning” at the International Conference on Stochastic Programming (ICSP), Paris, France
- 2025 Organizer of 6 sessions in 3 different streams (18 talks) at the International Conference on Continuous Optimization (ICCOPT), Los Angeles, USA
- 2025 Organizer of 5 sessions (20 talks) in the stream Optimization for machine learning at the Conference on Advances in Continuous Optimization (EUROPT), Southampton, UK
- 2024 Organizer of a session (4 talks) “Fast randomized algorithms for distributed optimization” at the Int. Symposium on Mathematical Programming (ISMP), Montréal, Canada
- 2024 Organizer of the stream (2 sessions, 7 talks) “Randomized optimization algorithms” at the Conference on Advances in Continuous Optimization (EUROPT), Lund, Sweden
- 2023 Organizer of a session (3 talks) “Optimization Algorithms: Some Recent Advances” at the Conf. of the Int. Federation of Operational Research Societies (IFORS), Santiago, Chile
- 2023 Organizer of a mini-symposium (12 talks) “Recent advances in operator splitting and fixed-point algorithms” at the SIAM Conference on Optimization, Seattle, USA
- 2021 Organizer of a special session (5 talks) “Recent advances in large-scale convex nonsmooth optimization and beyond” at the INFORMS Annual Meeting, Anaheim, CA, USA (virtual)
- 2021 Organizer of a mini-symposium (4 talks) “Recent advances in primal-dual splitting for convex optimization” at the SIAM Conference on Optimization, Spokane, USA (virtual)
- 2019 Organizer of a mini-symposium (12 talks) “Variational methods for inverse problems in imaging” at the conference Applied Inverse Problems, Grenoble, France
- 2019 Co-organizer (with Konstantin Usevich) of a special session “Advances in structured and constrained low-rank approximations” at the conference IEEE ICASSP, Brighton, UK
- 2016 Co-organizer (with Konstantin Usevich) of a special session “Structured low rank approximation” at the conference EUSIPCO, Budapest, Hungary

Organization, national events

- 2025 Co-organizer of the KAUST Workshop on Distributed Training in the Era of Large Models, 3 days, Thuwal, Saudi Arabia
- 2018 Member of the organization committee of the French Days on Optimization and Decision Science (SMAI-MODE), 3 days, Autrans
- 2016 Co-organizer (with Marianne Clausel, Julie Digne, Raphaëlle Chaine) of a thematic day “Machine Learning and Optimization”, sponsored by GdR MADICS and Région

Rhône-Alpes, Lyon

- 2015 Co-organizer of the 2nd edition of the workshop Optimization for Image and Signal Processing, 3 days, Henry Poincaré Institute, Paris
- 2015 Co-organizer (with Caroline Chaux) of a double special session “Optimization” at the conference GRETSI, Lyon
- 2015 Co-organizer (with Konstantin Usevich) of the workshop Structured Low Rank Approximation, 2 days, Grenoble
- 2015 Member of the organization committee and webmaster of the conference STATLEARN, 2 days, Grenoble
- 2013 Co-organizer of the 1st edition of the workshop Optimization for Image and Signal Processing, 3 days, Palaiseau

Program committee member

- 2025 Scientific committee member of the KAUST Workshop on Distributed Training in the Era of Large Models, 3 days, Thuwal, Saudi Arabia
- 2024 Scientific committee member of the Conference on Advances in Continuous Optimization (EUROPT), Lund, Sweden
- 2015 – Program committee member, as a session/mini-symposium organizer, at ICSP 2025, ICCOPT 2025, EUROPT 2025, ISMP 2024, EUROPT 2024, IFORS 2023, SIAM OP 2023, INFORMS Annual Meeting 2021, SIAM OP 2021, AIP 2019, IEEE ICASSP 2019, EUSIPCO 2016, GRETSI 2015
- 2009 – Session chair of the sessions I organized, and at EMMCVPR 2017, GRETSI 2017, IEEE ICIP 2009
- 2020 – Regular reviewer for conferences in machine learning: ICML, NeurIPS, ICLR, AISTATS
- 2004 – 2022 Regular reviewer for conferences in signal and image processing, mainly IEEE ICIP, IEEE ICASSP, EUSIPCO, GRETSI

10 OTHER PROFESSIONAL SERVICE

- 2025 External reviewer for a tenure and promotion case from assistant to associate professor, China
- 2022 External reviewer for the evaluation of the final candidates to a full professor position in applied mathematics and computer science, Saarland University, Germany
- 2021 External reviewer for a tenure and promotion case from assistant to associate professor, Department of Mathematics, University of Massachusetts Boston, MA, USA
- 2019 Reviewer of grant applications for the French National Research Agency (ANR)
- 2018 Reviewer of a grant application for the Swiss National Science Foundation
- 2015 Organizer of the international summer school BIGOPTIM on optimization, 5 days, Grenoble, France. 42 participants. Budget: 12 000 EUR
- 2009 Representative of the GREYC at the CeBIT expo, Hannover, Germany
- 2005 Activity to introduce reasoning based on mathematical games in a high-school class, Isère, France
- 2004 – 2006 Founder and President of the association MALIS of the (~50) PhD students in the Laboratory of Images and Signals, Grenoble, France

11 SUPERVISION

PhD students

- 2017 – 2021 PhD co-supervisor (with Mauro Dalla Mura) of Daniele Picone, GIPSA-Lab, Grenoble. Nonconventional spatio-spectral imaging in satellites
- 2017 – 2021 PhD co-supervisor (with Michel Desvignes and Mauro Dalla Mura) of Julien Baderot, Pollen Metrology and GIPSA-Lab, Grenoble. Automatic pattern recognition in multimodal images of nanomaterials by deep learning
- 2016 – 2019 PhD co-supervisor (with Jérôme Mars and Lionel Hervé) of David Orive-Miguel, CEA-LETI and GIPSA-Lab, Grenoble. Time-resolved optical tomography
- 2013 – 2017 PhD co-supervisor (with Valérie Perrier and Marianne Clausel), of Kevin Polisano, Lab. Jean Kuntzmann, Grenoble. Analysis and synthesis of oriented structures in images. Current position: research scientist of the CNRS, LJK, Grenoble

Postdoctoral researchers

- 2017 Co-supervisor (with Nelly Pustelnik) of Marion Foare, École Normale Supérieure (ENS) Lyon, France. Current position: tenured associate professor at the Chemistry and Digital Sciences Engineering School (CPE), Lyon, France
- 2014 Co-supervisor (with Jocelyn Chanussot) of Xiyan He, GIPSA-Lab, Grenoble
- 2010 – 2012 Supervisor of Vincent Roullier, during 14 months, and then Saleh Mosaddegh, during 10 months, in the frame of the ANR project CARTES, GREYC, Caen

Master students

- 2015 Supervisor of the MSc final project of Vincent Espitalier, Master of Science in Industrial and Applied Mathematics (MSIAM), Grenoble
- 2013 Supervisor of the MSc final project of Marion Millien, Master of Science in Informatics at Grenoble (MoSIG), Grenoble
- 2011 Supervisor of the MSc final year 6-month project of Maxime Bouaoud and Benjamin Lainé, National Graduate School of Engineering (ENSICAEN), Caen, in partnership with Canon Research France
- 2010 Supervisor of the MSc final project of Pierre Moser, Master Language, Image, Document (LID), Caen
- 2007 Supervisor of a MSc semester project of Stephanie Kecskes, Technical University of Munich (TUM), Munich
- 2006 Co-supervision of the MSc final project of Muhammad Murtaza Khan, Lab. Images and Signals, Grenoble
- 2005 Supervisor of the MSc final project of Hicham Esserhir, Master Signal, Image, Speech, Telecommunications (SIPT), Grenoble

12 GRANTS

Project management

- 2026 – 2027 Co-I (PI: Peter Richtárik) of the 1-year KAUST Small-Translational Research Grant (sTRG) project “TRACE: Transforming Textbooks into Verified, Interactive Courses using Retrieval-Augmented Generation”. 100,000 USD
- 2025 – 2028 Co-I (PI: Peter Richtárik) of the 3-year KAUST Competitive Research Grant (CRG)

- project “New Stochastic and Adaptive Proximal Algorithms for Distributed Optimization and Federated Learning”. 675,000 USD
- 2023 – 2024 PI of the 1-year project “Versatile distributed optimization for federated learning algorithms”, SDAIA–KAUST Center of Excellence in Data Science and Artificial Intelligence (SDAIA-KAUST AI). 200,000 SAR
- 2013 – 2015 PI (with Michael Blum and Marianne Clausel) of the project “Algorithmic methods for complex and large-scale data analysis”, program “exploratory projects” of LabEx PERSYVAL, Grenoble. Collaborations between 21 faculty members from 4 research centers
- 2013 PI of the project “Spectral parsimony for artificial vision of colors”, program PEPS of the CNRS
- 2010 – 2012 Scientific leader of the project “Fast and Easy Capture of Latent Prints from Crime Scenes” (CARTES), French National Research Agency (ANR). Members: company Morpho (PI), GREYC, company ELDIM, forensic police and gendarmerie

Consulting

- 2016 Consulting for Pollen Metrology, Moirans. 6,000 EUR. Object detection in image series of nanomaterials
- 2013 Consulting for Resolution Spectra Systems, Meylan. 5,000 EUR. Spectral analysis of nonuniform under-sampled data
- 2005 Consulting for Philips Applied Technologies, Paris. 16,000 EUR. Image enlargement from the TV to HDTV format

13 TEACHING

2020 – I have been giving a few guest lectures in the *Federated Learning* and *Stochastic Gradient Descent Methods* courses of Peter Richtárik.

As instructor of record

- ▷ Course “Optimization and inverse problems”, 2nd (final) year of Master’s studies, Master of Research in Signal and Image Processing Methods and Applications (SIGMA) of Grenoble Institute of Technology, Grenoble. Taught 2 times in 2016–2017, 2017–2018. About 12 students. Annual volume: 12 h lectures, 6 h computer lab sessions. Taught with Nelly Pustelnik (L. C. 60%, N. P. 40%), entirely in English.
- ▷ Course “Image processing”, 1st year of Master’s studies, Graduate School of Engineering in Energy, Water and Environmental Sciences (ENSE3) of Grenoble Institute of Technology, Grenoble. Taught 5 times in 2013, 2014, 2015, 2016, 2017. About 50 students. Annual volume: 12 h lectures, 32 h computer lab sessions. Spoken in French but material in English.

As adjunct professor or teaching assistant

- ▷ Common core of mathematics (3 parts: Fourier analysis, probability theory, linear algebra), 3rd year of undergraduate studies, Graduate School of Engineering POLYTECH of Univ. Grenoble Alpes, Grenoble. Taught 4 times in 2013–2014, 2014–2015, 2015–2016, 2016–2017. Annual volume: 10 h lectures (probability theory, about 80 students), 50 h tutorials (with groups of about 30 students)
- ▷ Course “Programming in C”, 1st year of undergraduate studies, computer science program, University Institute of Technology (IUT), Grenoble. Taught in 2013. About 25 students. Annual volume: 16 h computer lab sessions

▷ Common core of mathematics, 1st and 2nd years of undergraduate studies, Univ. Joseph Fourier, Grenoble. Taught 3 times in 2003–2004, 2004–2005, 2005–2006. Groups of about 25 students. Annual volume: 64 h tutorials

Mini-courses

- 2025 Course “Stochastic variance-reduced optimization algorithms and applications to federated learning”, Belgian graduate school in systems, control, optimization and networks (SOCN), UCLouvain, Louvain-la-Neuve, Belgium. 15 h
- 2022 Course “Convex optimization: Theory and algorithms”, Division of Computer, Electrical and Mathematical Sciences and Engineering (CEMSE), KAUST, Saudi Arabia. 9 h lectures
- 2018 Course “Optimization and inverse problems”, College of Information Science and Engineering, Ritsumeikan University, Kyoto, Japan. 7 h lectures
- 2015 Course “Primal-dual proximal splitting methods for large-scale convex optimization”, summer school BIGOPTIM, Grenoble, France. 3 h lectures and 4.5 h labs in Python

14 RESEARCH VISITS

- 2018 10 months at Ritsumeikan Univ., Kyoto, Japan. Host: Akira Hirabayashi. Competitive long-term fellowship from the Japanese Society for the Promotion of Science (JSPS)
- 2017 3 weeks at Instituto Superior Técnico (IST), Lisbon, Portugal. Host: José Bioucas-Dias
- 2012 3 months at Yamaguchi Univ., Ube, Japan. Host: Akira Hirabayashi (JSPS fellowship)
- 2011 1 week at Univ. Paris-Est Marne-La-Vallée, Paris, France. Host: Jean-Christophe Pesquet
- 2010 3 weeks at Chinese Univ. of Hong Kong. Host: Thierry Blu
- 2009 2 months at Simon Fraser Univ., Vancouver, Canada. Host: Torsten Möller
- 2007 2 weeks at Yamaguchi Univ., Ube, Japan. Host: Akira Hirabayashi
- 2004 – 2005 6 months at Biomedical Imaging Group, École Polytechnique Fédérale de Lausanne (EPFL), Lausanne, Switzerland. Hosts: Thierry Blu and Michael Unser. Competitive Eurodoc Program of the French Région Rhône-Alpes

15 PROFESSIONAL MEMBERSHIPS

- ▷ Member of the Institute of Electrical and Electronics Engineers (IEEE) and of the IEEE Signal Processing Society (student member 2004, member 2007, senior member 2019)

Preprints

- [U8] I. Sokolov, L. Condat, and P. Richtárik, “SILAGE: Memory-Efficient, Full-Gradient-Free Non-convex Optimization for Nested Finite Sums,” preprint arXiv:2606.15832, 2026.
- [U7] A. Sadiev, L. Condat, and P. Richtárik, “A Unified Primal-Dual Recipe for Accelerating Three-Operator Splitting Methods,” preprint arXiv:2605.26985, 2026.
- [U6] L. Condat, A. Sadiev, and P. Richtárik, “A Nesterov-Accelerated Primal-Dual Splitting Algorithm for Convex Nonsmooth Optimization,” preprint arXiv:2604.09245, 2026.
- [U5] L. Condat, A. Maranjyan, and P. Richtárik, “BiCoLoR: Communication-Efficient Optimization with Bidirectional Compression and Local Training,” preprint arXiv:2601.12400, 2025.
- [U4] L. Condat, E. Gasanov, and P. Richtárik, “The Stochastic Multi-Proximal Method for Nonsmooth Optimization,” preprint arXiv:2505.12409, 2025.
- [U3] A. Sadiev, L. Condat, and P. Richtárik, “Stochastic Proximal Point Methods for Monotone Inclusions under Expected Similarity,” preprint arXiv:2405.14255, 2024. Presented at the NeurIPS Workshop on Optimization for Machine Learning (OPT), Dec. 2024.
- [U2] L. Guo, S. A. Alghunaim, K. Yuan, L. Condat, and J. Cao, “Achieving Linear Speedup with ProxSkip in Distributed Stochastic Optimization,” preprint arXiv:2310.07983, 2023.
- [U1] L. Condat, I. Agarský, G. Malinovsky, and P. Richtárik, “TAMUNA: Doubly Accelerated Federated Learning with Local Training, Compression, and Partial Participation,” preprint arXiv:2302.09832, 2023.

International peer-reviewed journals

- [J40] L. Condat and P. Richtárik, “Convergence Analysis of the Probabilistic Gradient Estimator Algorithm for Weakly Convex Finite-Sum Optimization,” *Journal of Optimization Theory and Applications*, vol. 210, 2026.
- [J39] L. Condat, I. Agarský, and P. Richtárik, “CompressedScaffnew: The first theoretical double acceleration of communication from local training and compression in distributed optimization,” *Optimization*, 2026.
- [J38] Z. Tovmasyan, G. Malinovsky, L. Condat, and P. Richtárik, “Revisiting stochastic proximal point methods: Generalized smoothness and similarity,” *Journal of Nonlinear and Variational Analysis*, vol. 10, no. 3, pp. 471–505, June 2026. Special Issue dedicated to Yurii Nesterov.
- [J37] K. Yi, G. Meinhardt, L. Condat, and P. Richtárik, “FedComLoc: Communication-efficient distributed training of sparse and quantized models,” *Transactions on Machine Learning Research*, Sept. 2025.
- [J36] K. Yi, L. Condat, and P. Richtárik, “Explicit personalization and local training: Double communication acceleration in federated learning,” *Transactions on Machine Learning Research*, June 2025.
- [J35] D. Picone, M. Dalla Mura, and L. Condat, “Joint demosaicing and fusion of multiresolution coded acquisitions: A unified image formation and reconstruction method,” *IEEE Transactions on Computational Imaging*, vol. 9, pp. 335–349, 2023.
- [J34] L. Condat, D. Kitahara, A. Contreras, and A. Hirabayashi, “Proximal splitting algorithms for convex optimization: A tour of recent advances, with new twists,” *SIAM Review*, vol. 65, no. 2, pp. 375–435, 2023.
- [J33] A. Salim, L. Condat, K. Mishchenko, and P. Richtárik, “Dualize, split, randomize: Toward fast nonsmooth optimization algorithms,” *J. Optimization Theory and Applications*, vol. 195, pp. 102–130, Oct. 2022.

- [J32] L. Condat, “Tikhonov regularization of circle-valued signals,” *IEEE Transactions on Signal Processing*, vol. 70, pp. 2775–2782, June 2022.
- [J31] L. Condat, G. Malinovsky, and P. Richtárik, “Distributed proximal splitting algorithms with rates and acceleration,” *Frontiers in Signal Processing*, vol. 1, Jan. 2022. Special issue “Distributed Signal Processing and Machine Learning for Communication Networks”.
- [J30] H. Kamoshita, D. Kitahara, K. Fujimoto, L. Condat, and A. Hirabayashi, “Multiclass dictionary-based statistical iterative reconstruction for low-dose CT,” *IEICE Transactions on Fundamentals of Electronics, Communications and Computer Sciences*, vol. E104-A, no. 4, Apr. 2021.
- [J29] K. Polisano, M. Clausel, V. Perrier, and L. Condat, “Riesz-based orientation of localizable Gaussian fields,” *Applied and Computational Harmonic Analysis*, vol. 50, pp. 353–385, Jan. 2021.
- [J28] L. Condat, “Atomic norm minimization for decomposition into complex exponentials and optimal transport in Fourier domain,” *Journal of Approximation Theory*, vol. 258, Oct. 2020.
- [J27] D. Orive-Miguel, L. Di Sieno, A. Behera, E. Ferocino, D. Contini, L. Condat, L. Hervé, J. Mars, A. Torricelli, A. Pifferi, and A. Dalla Mora, “Real-time dual-wavelength time-resolved diffuse optical tomography system for functional brain imaging based on probe-hosted silicon photomultipliers,” *Sensors*, vol. 20, no. 10, pp. 2815, 2020.
- [J26] D. Orive-Miguel, L. Hervé, L. Condat, and J. Mars, “Improving Localization of Deep Inclusions in Time-Resolved Diffuse Optical Tomography,” *Applied Sciences*, vol. 9, no. 24, pp. 5468, 2019. Special issue “New Horizons in Time-Domain Diffuse Optical Spectroscopy and Imaging”.
- [J25] M. Foare, N. Pustelnik, and L. Condat, “Semi-linearized proximal alternating minimization for a discrete Mumford-Shah model,” *IEEE Transactions on Image Processing*, vol. 29, no. 1, pp. 2176–2189, Dec. 2019.
- [J24] K. Polisano, L. Condat, M. Clausel, V. Perrier, “A convex approach to super-resolution and regularization of lines in images,” *SIAM Journal on Imaging Sciences*, vol. 12, no. 1, pp. 211–258, 2019.
- [J23] F. Iutzeler and L. Condat, “Distributed projection on the simplex and l_1 ball via ADMM and gossip,” *IEEE Signal Processing Letters*, vol. 25, no. 11, pp. 1650–1654, Nov. 2018.
- [J22] J. Boulanger, N. Pustelnik, L. Condat, L. Sengmanivong, and T. Piolot, “Nonsmooth convex optimization for structured illumination microscopy image reconstruction,” *Inverse Problems*, vol. 34, no. 9, pp. 095004 1–22, 2018.
- [J21] N. Pustelnik and L. Condat, “Proximity operator of a sum of functions; application to depth map estimation,” *IEEE Signal Processing Letters*, vol. 24, no. 12, pp. 1827–1831, Dec. 2017.
- [J20] L. Condat, “Discrete total variation: New definition and minimization,” *SIAM Journal on Imaging Sciences*, vol. 10, no. 3, pp. 1258–1290, 2017.
- [J19] J. Frecon, N. Pustelnik, P. Abry, and L. Condat, “On-the-fly approximation of multivariate total variation minimization,” *IEEE Transactions on Signal Processing*, vol. 64, no. 9, pp. 2355–2364, 2016.
- [J18] L. Condat, “Fast projection onto the simplex and the l_1 ball,” *Mathematical Programming*, vol. 158, no. 1, pp. 575–585, July 2016.
- [J17] L. Condat and A. Hirabayashi, “Cadzow denoising upgraded: A new projection method for the recovery of Dirac pulses from noisy linear measurements,” *Sampling Theory in Signal and Image Processing*, vol. 14, no. 1, pp. 17–47, 2015.
- [J16] J. Schmitt, N. Pustelnik, P. Borgnat, P. Flandrin, and L. Condat, “2-D Prony-Huang transform: A new tool for 2-D spectral analysis,” *IEEE Transactions on Image Processing*, vol. 23, no. 12, pp. 5233–5248, Dec. 2014.
- [J15] X. He, L. Condat, J. Bioucas-Dias, J. Chanussot et J. Xia, “A new pansharpening method based on spatial and spectral sparsity priors,” *IEEE Transactions on Image Processing*, vol. 23, no. 9, pp. 4160–4174, Sept. 2014.

- [J14] L. Condat, “A generic proximal algorithm for convex optimization — Application to total variation minimization,” *IEEE Signal Processing Letters*, vol. 21, no. 8, pp. 985–989, Aug. 2014.
- [J13] L. Condat, “A direct algorithm for 1D total variation denoising,” *IEEE Signal Processing Letters*, vol. 20, no. 11, pp. 1054–1057, Nov. 2013.
- [J12] L. Condat, “A primal-dual splitting method for convex optimization involving Lipschitzian, proximable and linear composite terms,” *J. Optimization Theory and Applications*, vol. 158, no. 2, pp. 460–479, 2013.
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