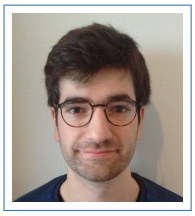

Jérémy E. Cohen

Current position: CNRS researcher at CREATIS

structure Team MYRIAD, CREATIS, Lyon

grade CRCN, section 07, CNRS

topics Semi-supervised Low-rank approximation (matrix and tensor factorizations with side information), non-convex optimization (unfolded methods and plug-and-play algorithms), applications to chemometrics, biomedical imaging, neuroimaging, remote sensing and music information retrieval.

Previous positions

CNRS Researcher at IRISA [2018–2021]

structure Team PANAMA, IRISA, Rennes

grade CRCN, section 07, CNRS

topics Low-rank approximation (matrix and tensor factorizations), non-convex optimization, applications to chemometrics, neuroimaging, remote sensing and music information retrieval.

Post-doc [2016–2018]

title *Constrained Low Rank Approximations*

structure UMONS,FNRS, Mons, supervised by Nicolas Gillis

description Further developing models and algorithms for computing low-rank approximations of environmental data, in particular non-negative matrix data.

PhD thesis [2013–2016]

title *Environmental Multiway data mining*

structure Gipsa-lab, CNRS, Grenoble, supervised by Pierre Comon

description I studied how to include data-related constraints (multi modality, nonnegativity, nonlinearity) to usual tensorial methods for data mining.

Master thesis [2013]

title *Quantum computation and communications*

structure Imai laboratory, University of Tokyo, Japan, supervised by Francois Le Gall

description I linked the concept of quantum chromatic number of a graph with some actual communication concepts like information flow.

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Teachings

2019–2021 **Smart Sensing (graduate)**, *ENSAI*.

2018–2021 **Sparsity-based signal processing (graduate)**, *INSA Rennes*.

2017–2018 **Probability and Statistics (undergraduate)**, *UMONS*.

2016 **Convex Optimisation for tensor decomposition (undergraduate)**, *UMONS*.

2014–2016 **General mathematics (undergraduate)**, *University Joseph Fourier*, Grenoble.

Supervision

Post docs/Engineers: Caglayan Tuna (2021-2023)

PhD students: Axel Marmoret (2019-), Rémi Cornillet (2021-)

Master students: Axel Marmoret (2019), Thomas Cusson (2019), Haoran Wu (2020-2021), Alexis Gagoud (2020), Victor Bertet (2020-2021), Kefan Sun (2020-2021)

Technical advisor: Nicolas Nadisic (2018-2022), Cassio Fraga-Dantas (2016-2019), Carla Schenker (2018-), Marie Roald (2018-)

Innovation

development: Matlab/python codes (see `github/cohenjer` and personal webpage)

Core member of the tensorly python package development team

Projects

ANR: LoRAiA (2020-2024): JCJC ANR funding on Semi-supervised Low-rank approximations

Inria AI: Tensoptly: a project to enhance optimization methods in tensorly.

Collective responsibilities

Journals reviewing committees: IEEE Transactions on Signal Processing, IEEE Signal Processing Letter, IEEE Transactions on Neural Networks and Learning Systems, IEEE Transactions on Image Processing, IEEE Transactions on Pattern Analysis and Machine Intelligence, IEEE Transactions on Cybernetics, IEEE Geoscience and Remote Sensing Letters, Elsevier Signal Processing, IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing.

Special Sessions: CAMSAP 2021: Coupled Matrix and Tensor Factorization, co-organised with Evrim Acar.

Invited speaker

March 2020 **Workshop**, *Dagstuhl Seminar: Tensor Computations*, Warden, Germany.

Sept. 2019 **Conference**, *AI and Tensor Factorization for Physical, Chemical and Biological Systems*, Sante Fe, USA.

April 2019 **Workshop**, *Low-Rank and Optimization Workshop*, Leipzig, Germany.

June 2015 **Workshop**, *JODA workshop*, Copenhagen, Denmark.

Education

2011–2013 **Double degree Ms**, *INSA Lyon and Ecole Centrale de Lyon*.
Master in mathematical engineering in parallel with Master in Telecomunications

2010–2011 **Double degree Bs**, *University of Lyon 1 and Ecole Centrale de Lyon*.
Bachelor in mathematics in parallel with Bachelor in general engineering

2007–2009 **Classes préparatoires MP**, *Lycée Pasteur*, Neuilly sur seine.
Equivalent to two years of Bachelor in fundamental Mathematics and Physics

Languages

English Fluent
Japanese Average
German Average (B2)
French Fluent