Cédric Févotte

Born 1977 in Northeastern France
CNRS research director in data science

IRIT-ENSEEIHT
2 rue Camichel, 31000 Toulouse, France
cedric.fevotte@irit.fr | +33 5 34 32 22 23
https://www.irit.fr/~Cedric.Fevotte

Current position

since 2007	**CNRS researcher** (permanent position), with the following successive affiliations:
2016-	***Institut de Recherche en Informatique de Toulouse (IRIT)*** *CNRS & Université de Toulouse*
2013–2016	***Laboratoire Lagrange***, Nice *CNRS, Observatoire de la Côte d'Azur & Université Nice Sophia Antipolis*
2007–2012	***Laboratoire Traitement et Communication de l'Information (LTCI)***, Paris *CNRS & Télécom ParisTech*

Directeur de Recherche (equivalent of Professor) since 2015.

Current affiliations

- Member of the Signal & Communications (SC) group of IRIT
- Member of the machine learning group of Labex CIMI (Toulouse maths & computer science initiative)
- Member of ANITI (Artificial and Natural Intelligence Toulouse Institute)
- Member of IPAL (CNRS International Research Laboratory on Artificial Intelligence, Singapore)
- Member of ELLIS (European Laboratory for Learning and Intelligent Systems)

Previous positions

2007	**Research associate** at ***Télécom ParisTech***, Paris (*8 months*) Post-doctoral position with the European network of excellence K-Space (Knowledge space of semantic inference for automatic annotation and retrieval of multimedia content).
2006–2007	**Research engineer** at ***Mist-Technologies***, Paris (*10 months*) (startup company which became *Audionamix*). Development of sound source separation technology for mono to 3D surround sound remastering.
2003–2006	**Research associate** at ***Cambridge University Engineering Department***, UK Post-doctoral position in the Signal Processing Laboratory with the European network HASSIP (Harmonic analysis and statistics for signal and image processing).

Education

2014	**Habilitation à diriger des recherches** obtained from *Université Nice Sophia Antipolis* French qualification required to be the principal supervisor of a PhD student.
2000–2003	**Thèse de doctorat** (PhD) in signal processing ***Institut de Recherche en Comm. et Cybernétique de Nantes (IRCCyN)*** *CNRS, École Centrale, École des Mines & Université de Nantes*, France
1999–2000	**DEA** (MSc) in control and computer science. *École Centrale de Nantes.*
1997–2000	**Studies in electrical engineering** (MEng). *École Centrale de Nantes.*

Visiting positions

2012	***Visiting scientist*** at ***Mitsubishi Electric Research Laboratories***, Cambridge, Massachusetts (*3 months*)

Short stays at *National University of Singapore* (2022, 2019, 2018), *University of Oxford* (2019), *Boğaziçi University* (Istanbul, 2012, 2010), *University of Maribor* (Slovenia, 2002).

Research interests

Statistical signal processing & machine learning, with particular interests in *matrix factorisation, representation learning, source separation* and *recommender systems*. Statistical estimation, Bayesian inference, optimisation, Markov-chain Monte Carlo, variational approximations, optimal transport, latent variable models, independent component analysis, sparsity, time-frequency representations.

Distinctions

2022	Elevated to IEEE Fellow
2021	IEEE Signal Processing Society Outstanding Editorial Board Member Award
2019	CNRS Senior Executives training programme
2015	European Research Council (ERC) Consolidator Grant (`http://projectfactory.irit.fr/`)
2014	IEEE Signal Processing Society Best Paper Award (with Alexey Ozerov)
	ICASSP Best Student Paper Award (awarded to Dennis Sun)
2012	CNRS *Prime d'Excellence Scientifique*
2009	ANR (the French research funding agency) Young Researcher Grant

Selected professional service

International

since 2018	Member of scientific advisory board *Acoustics Research Institute*, Vienna.
2018 – 2022	Senior Area Editor, IEEE Transactions on Signal Processing.
2019	Co-general chair SPARS 2019, Toulouse.
2014–2018	Associate Editor, IEEE Transactions of Signal Processing.
2012–2017	Member of IEEE technical committee Machine Learning for Signal Processing.

National

since 2019	Member of steering committee *Centre International de Mathématiques et d'Informatique de Toulouse* (CIMI, funded under the ANR *Laboratoire d'Excellence* program).
since 2021	Member of IRIT scientific advisory board (*Comité Stratégique Recherche*).
2017–2020	Member of IRIT steering committee (*Conseil de Laboratoire*).
2015–2018	Member of ANR scientific committees (evaluation and ranking of grant applications).
2009–2017	Member of GdR ISIS steering committee (CNRS-funded French network for Information, Signal, Images & Vision, with ~3000 members), in charge of the PhD students network.
2013–2015	Member of French PhD award committee for best thesis in signal & image processing.
2011–2012	Member of LTCI steering committee (*Conseil de Laboratoire*).
2010	Scientific director of 5th French summer school on signal & image processing, Peyresq.
2008	Contributor of national report on administrative simplification in research units.

Publications

36 journal papers (many IEEE Signal Processing Society journals, 2 Journal of Machine Learning Research, 2 Data Mining and Knowledge Discovery, 2 Neural Computation, etc.)

80 peer-reviewed conference papers (including 32 IEEE, 4 NeurIPS, 2 ICML, 1 EMCL-PKDD, 1 UAI, 4 ISMIR)

5 book chapters

Google Scholar profile: h-index 39, +10,000 citations
`http://scholar.google.com/citations?user=kAWEUq0AAAAJ&hl`
Full publication list: `https://www.irit.fr/~Cedric.Fevotte/publications.html`

Selected recent talks

• Recent advances in nonnegative matrix factorization. Tutorial at *IEEE ICASSP*, Singapore, 2022. `https://www.irit.fr/~Cedric.Fevotte/talks/icassp2022.pdf`
• Temporal models with low-rank spectrogram. Keynote at the *IEEE Workshop on Machine Learning for Signal Processing*, 2018. `https://www.irit.fr/~Cedric.Fevotte/talks/keynote_mlsp2018.pdf`