

Research interests

Sequential decision making, multi-armed bandits, reinforcement learning, sequential testing, adaptive clinical trials, machine learning for precision medicine

Positions

- 2026– **CNRS Research Director (DR2)**, *CRIStAL (UMR 9189), Lille*
Since October 1st, 2026. Member of the Inria project-team Scool.
- 2015–2026 **CNRS Research Scientist (CRCN)**, *CRIStAL (UMR 9189), Lille*
Member of the Inria project-teams SequeL (2015–2018) then Scool (2019–).
- 2014–2015 **Postdoctoral researcher**, *Inria Paris*
DYOGENE team, with Marc Lelarge.
- 2011–2014 **PhD student and teaching assistant**, *Telecom ParisTech & UPMC*

Education

- 2020 **Habilitation à diriger des recherches (HDR)**, *Université de Lille*
Contributions to the Optimal Solution of Several Bandit Problems.
- 2014 **PhD in Statistics**, *Telecom ParisTech*
Analysis of Bayesian and frequentist strategies for sequential resource allocation.
Advisors: O. Cappé, A. Garivier, R. Munos.
- 2011 **MSc Mathematics, Vision and Learning (MVA)**, *ENS Cachan*
- 2010 **Agrégation de Mathématiques**, *ENS Cachan*
Ranked 30th out of 263.

Awards

- 2024 CNRS Bronze Medal
- 2014 Jacques Neveu PhD Prize (best French PhD thesis in probability and statistics)

Selected publications

11 journal papers, 46 papers in conference proceedings (COLT, ALT, NeurIPS, ICML, AISTATS...). Full list on my webpage.

- C. Koné, M. Jourdan, **E. Kaufmann**. *Pareto Set Identification with Posterior Sampling*. AISTATS 2025.
- A. Al-Marjani, A. Tirinzoni, **E. Kaufmann**. *Active Coverage for PAC Reinforcement Learning*. COLT 2023.
- M. Jourdan, R. Degenne, D. Baudry, R. de Heide, **E. Kaufmann**. *Top Two Algorithms Revisited*. NeurIPS 2022.
- **E. Kaufmann**, W. Koolen. *Mixture Martingales Revisited with Applications to Sequential Tests and Confidence Intervals*. JMLR, 2021.
- M. Aziz, **E. Kaufmann**, M.-K. Rivi re. *On Multi-Armed Bandit Designs for Dose-Finding Trials*. JMLR, 2021.
- D. Baudry, R. Gautron, **E. Kaufmann**, O.-A. Maillard. *Optimal Thompson Sampling Strategies for Support-Aware CVaR Bandits*. ICML 2021.
- **E. Kaufmann**, P. M nard, O. Darwiche Domingues, A. Jonsson, E. Leurent, M. Valko. *Adaptive Reward-Free Exploration*. ALT 2021.
- L. Besson, **E. Kaufmann**. *Multi-Player Bandits Revisited*. ALT 2018.
- A. Garivier, **E. Kaufmann**. *Optimal Best Arm Identification with Fixed Confidence*. COLT 2016.
- **E. Kaufmann**, N. Korda, R. Munos. *Thompson Sampling: An Asymptotically Optimal Finite-Time Analysis*. ALT 2012.

Supervision

- PhD (ongoing) Francesca Hemetsberger (2026–, with A. Garivier), S bastien Martin (2026–, with Ph. Preux), Redouane Yagouti (2025–, with R. Degenne), Thomas Michel (2024–, with D. Basu).

PhD (defended)

- Adrienne Tuynman (2023–2026, with R. Degenne), now postdoc at the University of Nuremberg
- Cyrille Koné (2022–2025, with L. Richert), now postdoc at the University of Zurich
- Marc Jourdan (2021–2024, with R. Degenne), now CNRS researcher
- Aymen Al-Marjani (2021–2023, with A. Garivier), now research scientist at Amazon
- Dorian Baudry (2019–2022, with O.-A. Maillard), now Inria research scientist
- Clémence Réda (2019–2022, with A. Delahaye-Duriez), now CNRS research scientist
- Omar Darwiche Domingues (2018–2022, with M. Valko), now research scientist at Cohere
- Xuedong Shang (2017–2021, with M. Valko), now quantitative researcher at QRT
- Lilian Besson (2016–2019, with C. Moy), now teacher in *classes préparatoires*

Postdocs Mehrahsa Ahmadipour (2025–), Sabine Chebbi (2024–), Lorenzo Hermez (2025–2026, now assistant professor at IMT Nord-Europe), Rianne de Heide (2021–2022, now associate professor at the University of Twente), Andrea Tirinzoni (2021–2022, now research scientist at Meta), Pierre Ménard (2019–2021, now research scientist at Meta).

Grants and projects

- PI Inria Exploratory Action BETA-3K (2025–2028), *bandit designs for phase III clinical trials*, in collaboration with the MRC Biostatistics Unit, Cambridge. PEPS BIO (2017), *bandits for the Internet of Things*.
- Local PI PEPR IA FOUNDRY (2024–2028, robust and reliable AI), ANR BOLD (2019–2023), CHIST-ERA DELTA (2018–2022, lifelong reinforcement learning).
- Member CDP NUMETAB (2026–2030, work-package co-leader), ANR BIP-UP (2023–2028, bandits for patient follow-up), ANR FATE (2023–2027), CNRS/INSERM REPOS (2019).

Selected invited talks (plenary speaker)

- Algorithmic Statistics Workshop, Oxford, 2025
- RL Theory Workshop, CWI Amsterdam, 2025
- Workshop on Bandits and Statistical Testing, Potsdam, 2023
- European Workshop on Reinforcement Learning, Brussels, 2023
- Journées de Statistique, Lyon, 2022
- Conference on Statistics and Biopharmacy (SNB), Paris, 2022

Service to the community

- Boards Board of Directors of the Association for Computational Learning (organizes COLT), elected 2025.
- Program committees COLT (2017, 2023, 2025, 2026), ALT (2019–2024), Area Chair for NeurIPS (2020).
- Organization EWRL 2026, Lille (main co-organizer, 240 participants) · Reinforcement Learning Summer School RLSS 2019, Lille (main co-organizer, 125 participants) · CRISAL laboratory colloquium (2024–).
- Evaluation 33 PhD and HDR committees (10 as reviewer) in France and abroad (KTH, Chalmers, Politecnico di Milano, NUS, CMU, Copenhagen...) · 8 associate professor hiring committees · Inria CR hiring committee (2022).
- Reviewing JMLR, IEEE Trans. Inf. Theory, Annals of Applied Probability, Bernoulli · COLT, ALT, NeurIPS, ICML, AISTATS, EWRL.

Teaching and outreach

- Teaching Statistics (M1 Data Science, Univ. Lille, 2024–2026), Sequential Decision Making (M2 Data Science, Univ. Lille, 2021–2023), Reinforcement Learning (Centrale Lille, 2020–2022; M2 MVA, 2023, 2026), Data Mining and Machine Learning (M1/M2, Univ. Lille, 2017–2020). Examiner for the ENS B/L entrance exam (2017–2019).
- Outreach Chapter on reinforcement learning in the popular science book *Tout comprendre (ou presque) sur l'IA*, CNRS Éditions, 2024. Talks and round tables for high-school students (Chiche!, RJMI, CRISAL school commission).