Vianney Perchet

Crest, ENSAE & Criteo AI Lab, Paris
http://www.vianney.ai

8, rue des Hauts Graviers
91360 Epinay/Orge
☎ *+33 6 74 90 87 76*

✉ *vianney.perchet@normalesup.org*
Born on Feb. 1, 1982

Work Experience

Research

2019–	**Professor**, *CREST, ENSAE*, France, Statistics and Economics Department.
2017–	**Principal Researcher**, *Criteo AI Lab*, France, Part time.
2016–2019	**Professor**, *CMLA, ENS Paris-Saclay*, France, Applied Math Department.
	Head of Maths Department, *(2017–2019)*.
2015–2016	**Professor**, *CREST, ENSAE*, France, Statistics and Economics Department.
2014–2015	**Researcher INRIA**, *Sierra, ENS Paris*, France.
2011–2015	**Maître de Conférence**, *Université Paris Diderot – Paris 7*, France. (Recipient of the PES since 2013)

Teaching as a Faculty

2019–	**ENSAE**, Introduction to Machine Learning, Advanced Machine Learning, Auctions and Matchings .
2015–2019	**Université Paris Saclay**, Game Theory, Algorithms & Learning, Introduction to Statistical Learning, Predictions for Individual Sequences.
2015–2016	**ENSAE**, Optimization.
2011–2015	**Université Paris Diderot**, The Microeconomics of Insurance; Econometrics; Bayesian Statistics; Probabilities and Statistics; Ordinary Differential Equation.

Committees

2015–2019	**Habilitation Committees**, *3 participations*, M. Valko (reviewer), P. Loiseau, O.-A. Maillard (reviewer).
2015–2019	**Ph.D. Committees**, *12 participation*, S. T. Mazraeh, J. Kwon, E. Contal, M.-L. Cauwet, F. Guillou, A. Mrabet, J. Grant (reviewer), L. Besson (reviewer), D.Q. Vu (reviewer), M. Achab, V. Cohen, H. Hadiji.

Supervisions

2015–2021	**PhD Student (10)**, Evrad Garcelon (Facebook), Flore Sentenac (ENSAE), Reda Ouhamma (INRIA), Etienne Boursier (ENS Cachan), Firas Jarboui (Aneo), Xavier Fontaine (ENS Cachan), Matthieu Jedor (Cdiscount), Pierre Perrault (ENS Cachan & Inria Lille), Thomas Nedelec (Criteo), Remy Degenne (Paris Diderot).

Education

2014	**Habilitation**, *Online Learning, Statistical Games and Game Theory*, University Paris Diderot, France.
2006–2010	**Doctorate**, *Approachability, Calibration and Regret in Games with Partial Monitoring*, University Pierre and Marie Curie, France.
2002–2006	**École Normale Supérieure**, Paris.
Master's degree	**Economics Analysis and Policy**
Teaching	*Agrégation de mathématiques*: highest French degree for teaching.

Publications the Last 3 Years

Accepted in peer reviewed journals

[PerQui19] **A differential game on Wasserstain space. Application to weak approachability with partial monitoring.**, *with M. Quincampoix*, in *Journal of Games and Dynamics*, 2019.

[FleLarPer18] **Approachability in generalized quitting games**, *with J. Flesch and R. Laraki*, in *Games and Economic Behavior*, 2018.

[KwoPer17] **Gains and losses are fundamentally different in regret minimization – The sparse case**, *with J. Kwon*, in *Journal of Machine Learning Research*, 2017.

Accepted in peer reviewed proceedings of internationale conferences

[BouPer20b] **Selfish Robustness and Equilibria in Multi-Player Bandits**, *with E. Boursier*, COLT'20.

[PerPerVal20] **Covariance-adapting algorithm for semi-bandits with application to sparse rewards**, *with P. Perrault and M. Valko*, COLT'20.

[BouPer20a] **Utility/Privacy Trade-off through the lens of Optimal Transport**, *with E. Boursier*, AIStats'20.

[MehBouKauPer] **A Practical Algorithm for Multiplayer Bandits when Arm Means Vary Among Players**, *with A. Mehrabian, E. Boursier and E. Kaufmann*, AIStats'20.

[NedCalPerElK] **Robust Stackelberg buyers in repeated auctions**, *with T. Nedelec, C. Calauzene and N. El Karoui*, AIStats'20.

[FonManPer] **An adaptive stochastic optimization algorithm for resource allocation**, *with X. Fontaine and S. Mannor*, ALT'20.

[Per] **Finding Robust Nash equilibria**, ALT'20.

[BouPer19] **SIC-MMAB: Synchronicity Implies Communication in Multi-Player Multi-Armed Bandits**, *with E. Boursier*, NeurIPS'19.

[JedLouPer] **Categorized Bandits**, *with M. Jedor and J. Louedec*, NeurIPS'19.

[PerPerVal19b] **Exploiting Structure of Uncertainty for Efficient Combinatorial Semi-Bandits**, *with P. Perrault and M. Valko*, ICML'19.

[NedPerElK19] **Learning to bid in revenue-maximizing auctions**, *with T. Nedelec and N. El Karoui*, ICML'19.

[PerPerVal19a] **Finding the Bandit in a Graph: Sequential Search-and-Stop**, *with P. Perrault and M. Valko*, AIStats'19.

[FonBerPer19] **Regularized Contextual Bandits**, *with X. Fontaine and Q. Berthet*, AIStats'19.

[DegNed19] **Bridging the gap between regret minimization and best arm identification, with application to A/B tests**, *with R. Degenne, T. Nedelec and C. Calauzenes*, AIStats'19.

[CesCesPer19] **Dynamic Pricing with Finitely Many Unknown Valuations**, *with N. Cesa-Bianchi and T. Cesari*, ALT'19.

[Jar19] **Markov Decision Process for MOOC users behavioral inference**, *with F. Jarboui, C. Gruson-Daniel, A. Durmus, V. Rocchisiani, S.-H. Goulet Ebongue, A. Depoux, W. Kirschenmann, V. Perchet*, Emoocs'19.

[DegEvrPer18] **Bandits with Side Observations: Bounded vs. Logarithmic Regret**, *with R. Degenne, G. Evrard*, UAI'18.

[BerPer17] **Fast Rates for Bandit Optimization with Upper-Confidence Frank-Wolfe**, *with Q. Berthet*, NeurIPS'17.

Communications

2019 **Some recent interactions between online learning and active statistics**, *MSR Theory Seminar*, Seattle, US.

2019 **SIC-MMAB: Synchronicity Unlocks Communication in Multi-Player Multi-Armed Bandits**, *Bandit Workshop*, London, UK.

2019 **Competing & Collaborating Articial IntelligenceS**, *France is AI*, Paris, France.

2019 **SIC-MMAB: Synchronicity Unlocks Communication in Multi-Player Multi-Armed Bandits**, *FILO-FOCS Workshop*, Tel-Aviv, Israel.

2019 **Learning in Games**, *Summer School in Game Theory*, Lima, Perou.

2019 **Private Leaning**, *Splitting Methods Workshop*, New-York, US.

2018 **Dynamic Pricing with Finitely Many Valuations**, *Technion*, Haifa, Israel.

2018 **Learning Auctions: Reserve prices and Bidding Strategies**, *GAMENET Training School*, Krakow, Poland.

2018 **Dynamic Pricing with Finitely Many Valuations**, *Luiss Seminar*, Rome, Italy.

2018 **Learning Auctions: Reserve prices and Bidding Strategies**, *18th International Symposium on Dynamic Games and Applications*, Grenoble, France.

2018 **Activizing Statistical Procedures**, *Operator Splitting Methods in Data Analysis*, Samsi, Raleigh, USA.

2018 **Discussions, Ideas, Open and Stupid Question on Learning & Optimization with Distributions** , *Optimization for learning Workshop 2018*, Santiago, Chile.

2017 **Online Search Problems a.k.a. "Finding the bandit"**, *Online Learning Workshop*, Turing Institute, UK.

2017 **Upper-Confidence Frank-Wolfe algorithms for Convex Bandit Optimization: Fast rates**, *Optimization 2017*, Lisboa, Portugal.

2017 **Bandit Optimization of (non)-Smooth Losses with an Upper-Confident Frank-Wolfe**, *SiOpt 2017*, Vancouver, Canada.

2017 **Bandit Optimization with an Upper-Confident Frank-Wolfe**, *Statistic Seminar*, MIT, US.

2017 **New Perspectives for Multi-Armed Bandits and Their Applications**, *Workshop Learning & Statistics*, IHES, France.

2017 **Highly-Smooth Zero-th Order Stochastic Online Optimization**, *FOCM*, Barcelona, Spain.

2017 **Bandit Optimization with an Upper-Confident Frank-Wolfe**, *Optimization and Statistical Learning*, les Houches, France.

Editorial Activity

2015– **Associate Editor**, *Journal of Dynamics and Games; Operation Research Letters, Operation Research, SIAM J. Mathematics of Data Science*.

2015– **Program Committee**, *Conferences*, COLT, NeurIPS, ECAI, ALT.