

# Claire VERNADE

Ph.D. candidate in Statistical Learning

## PERSONAL DATA

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PLACE AND DATE OF BIRTH : Paris | November, 4th 1991  
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## EDUCATION

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SINCE OCT 2014 Ph.D student at LTCI, Paris | *Director : Olivier CAPPÉ*  
Title : Online learning methods for user-based content adaptation.

APR - SEPT 2014 Research internship at LTCI, Paris | *Director : Olivier CAPPÉ*  
Matster's Thesis : *Optimal resource allocation algorithms for movie recommendation.*

2013-2014 M.Sc. in APPLIED MATHEMATICS, Ecole Normale Supérieure de Cachan  
Major : Learning Theory, Applied Statistics, Reinforcement Learning.  
Grant : Excellence Scholarship of the Foundation for Mathematics Jacques Hadamard.  
*Received with highest honors ("Mention Très Bien").*

2011-2013 Master in Engineering at TELECOM PARISTECH in *Operations Research,*  
Linear Algebra, Optimization, Advanced methods for encoding, Statistical Learning.

2009-2011 Preparation School for Competitive exams at Lycée Louis-Le-Grands, Paris  
"Concours Mines-Ponts" RANKED : 660th among 5325 candidates.

## WORK EXPERIENCE

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FEB 2017 - JUNE 2017 Research Intern at ADOBE RESEARCH, SAN JOSE, CA with Branislav Kveton

- Project 1 : Best-arm Identification for Combinatorial Bandit Problems under Independence Hypotheses. Theory
- Project 2 : Low-Rank Stochastic Bandits ;
- Side projects : continued work on Rank-1 Bandits (cf. dedicated section below) : AISTATS and IJCAI joint publications.

OCT 2014 - JAN 2017 Teaching Assistant at TÉLÉCOM PARISTECH, FRANCE

- Practical sessions on elementary and advanced Machine Learning (MDI 341, INFMDI 341) J. Salmon and A. Gramfort's course ;
- Supervisor of a long run project for the Big Data Master on marketing campaign optimization (INFMDI 780) ;
- In charge of the Reinforcement Learning Class for the Big Data Master (3h + practical session)

SEPT 2013 - MAR 2014 Fix-term contract at INRA as research assistant, Paris | *Met@Risk team*

- Machine Learning : understanding of features about uncertainty in food risk prediction.
- Statistics : full study of a poll, analysis of sociological phenomena
- Collaborated with Prof. Sandrine Blanchemanche, INRA and Prof. Akos Iasonas, UC San Diego

## PUBLICATIONS

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### International Conferences

- Vernade, C., Cappé, O., & Perchet, V. (2017). *Stochastic Bandit Models for Delayed Conversions*. UAI 2017, Sydney. [arXiv :1706.09186](#).
- Kwon, J., Perchet, V., & Vernade, C. (2017). *Sparse Stochastic Bandits*. COLT 2017, Amsterdam. [arXiv :1706.01383](#).
- Katariya, S., Kveton, B., Szepesvári, C., Vernade, C., & Wen, Z. (2017). *Bernoulli Rank-1 Bandits for Click Feedback*. IJCAI 2017, Melbourne. [arXiv :1703.06513](#).
- Katariya, S., Kveton, B., Szepesvari, C., Vernade, C., & Wen, Z. (2016). *Stochastic rank-1 bandits*. AISTATS 2017, Fort Lauderdale, FL. [arXiv :1608.03023](#).
- Lagrée, P., Vernade, C., & Cappé, O. (2016). *Multiple-Play Bandits in the Position-Based Model*. NIPS 2016, Barcelona. [arXiv :1606.02448](#).
- Vernade, C., & Cappé, O. *Learning from missing data using selection bias in movie recommendation*. IEEE DSAA 2015. [arXiv :1509.09130](#)

### Workshops without proceedings

- Vernade, C., Lagrée, P., Cappé, O. *Modèle de distraction pour la sélection séquentielle de contenu*. Communication aux Journées de Statistiques 2016, Montpellier.

## SELECTED TALKS

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- July 2017 COLT main conference, Amsterdam  
*Sparse Stochastic Bandits*
- June 2017 EDF Lab Workshop on Machine Learning, Saclay  
*2h introduction talk on bandits and related applications*
- Jan. 2017 Parisian Meetups on Recommender Systems, Paris  
*Sequential Learning in the Position-Based Model*
- Nov. 2016 INRIA Lille weekly workshop, Lille  
*Insights on Multiple-Plays Bandits with Censored Feedbacks*
- June 2016 ICML Workshop on Online Advertising Systems, New York  
*Online Inference for Multiple-Item Display Under the Position-Based Model*.
- Oct. 2015 DSAA 2015, Paris  
*Learning from missing data using selection bias in movie recommendation*.
- March 2015 Journée de la Chaire Machine Learning for Big Data  
*Reinforcement learning ideas for recommender systems*.

## MISCELLANEOUS

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- Reviewer for NIPS 2016, COLT 2017, ICML 2017, NIPS 2017.

## SKILLS

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### Informatics

Python (machine learning, scikit-learn, teaching), Julia, R (basic statistics), Matlab (educational purpose)

### Languages

French (Mother-tongue)  
English (fluent)  
Spanish (good)

### Interests

Cooking, wine tasting, hiking, swimming;  
Planning and organizing events.