

## A. IDENTIFICATION

*Family name :* MARY  
*Given name :* JÉRÉMIE  
*Position :* Associate Professor at Univ. Lille  
*Research Team :* Inria Lille Nord-Europe, SEQUEL team  
*Personal situation :* Living under civil union (PACS), 2 kids  
*E-mail :* jeremie.mary@inria.fr



## B. SITUATION

### SITUATION

---

- 2017-:** Détaché as **Senior Staff Researcher** at CRITEO Paris.  
In charge of a research group.
- 2015-2017:** **Associate Professor**  
**Habilitation à Diriger des Recherches.**  
*Data-Driven Recommender Systems - Sequences of Recommendations.*  
defended at Lille on 24-11-2015 in front of:
- |           |           |                         |            |
|-----------|-----------|-------------------------|------------|
| Jean-Yves | AUDIBERT  | Capital Fund Management | Examineur  |
| Francis   | BACH      | DR Inria                | Rapporteur |
| Patrick   | GALLINARI | PRU Paris VI            | Rapporteur |
| Rémi      | GILLERON  | PRU Lille               | Président  |
| Philippe  | PREUX     | PRU Lille               | Garant     |
| Louis     | WEHENKEL  | PRU Liège               | Rapporteur |
- 2006-2015:** **Assistant Professor** at university of Lille.  
Member of the SEQUEL team at Inria Lille Nord-Europe.  
Expert for the french ministry of research.  
Level A excellence grant (top 20% at national level) since 2014.
- 2003-2005:** **PhD** at Univ. Paris XI - Orsay.  
under supervision of Michèle SEBAG et Antoine CORNUÉJOLS.  
*Sujet : Étude de l'Apprentissage Actif - Application à la Conduite d'Expériences.*  
Highest honors.  
defended on 12-12-2005 in front of:
- |             |            |                |            |
|-------------|------------|----------------|------------|
| Olivier     | BOUSQUET   | Google Zurich  | Examineur  |
| Stéphane    | CANU       | PR INSA Rouen  | Rapporteur |
| Christine   | FROIDEVAUX | PRU Paris XI   | Présidente |
| Michèle     | SEBAG      | DR CNRS        | Directrice |
| Marc        | SEBAN      | PRU St Etienne | Rapporteur |
| Jean-Daniel | ZUCKER     | PRU Paris XIII | Examineur  |
- 2001-2002:** Master : Information, Interaction, Intelligence.  
Univ. Paris XI. Highest honors.

## C. RESEARCH

### MAIN PUBLICATIONS

---

*Internat. Journal :*

- [1] A. Khaleghi, D. Ryabko, J. Mary, P. Preux, Consistent algorithms for clustering time series, Journal of Machine Learning Research, 17(3):1-32, 2016 *Impact factor 2.47.*

- [2] O. Nicol, J. Mary, and P. Preux Improving offline evaluation of contextual bandit algorithms via bootstrapping techniques *JMLR Workshop and Conference Proceedings*, 2014. *Impact factor 2.47*.
- [3] Daniil Ryabko and Jeremie Mary. A binary-classification-based metric between time-series distributions and its use in statistical and learning problems. *Journal of Machine Learning Research*, 2013. *Impact factor 2.85*.
- [4] O. Nicol, J. Mary, and Ph. Preux. Icml exploration and exploitation challenge: Keep it simple ! In *JMLR Workshop and Conference Proceedings*, vol 26, 2012. *Impact factor 3.42*.
- [5] S. Girgin, J. Mary, Ph. Preux, and O. Nicol. Managing advertising campaigns - an approximate planning approach. In *Frontiers of Computer Science*, 2011. *Impact factor 0.43*.
- [6] G. Mercier, N. Berthault, J. Mary, A. Antoniadis, J.-P. Comet, A. Cornuéjols, C. Froidevaux and M. Dutreix . Biological detection of low radiation by combining results of two analysis methods. In *Nucleic Acids Research (NAR) 32(1):e12*, 2004. *Impact factor 7.62*.

- Internat. Conference :*
- [1] J. Mary, O. Nicol, and P. Preux Improving offline evaluation of contextual bandit algorithms via bootstrapping techniques Proc. International Conference on Machine Learning (ICML), Beijing - China, 2014
  - [2] D. Ryabko and J. Mary. Reducing statistical time-series problems to binary classification. In *Neural Information Processing Systems (NIPS)*, 2012.
  - [3] A. Khaleghi, D. Ryabko, J. Mary, and Ph. Preux. Online clustering of processes. In *Proc. 15th Conf. on Ai and Stats (AISTATS)*, 2012.
  - [4] S. Girgin, J. Mary, Ph. Preux, and O. Nicol. Advertising campaigns management: Should we be greedy? In *The 10th IEEE International Conference on Data Mining (ICDM)*, 2010.
  - [5] Raphaël Maîtrepierre, Jérémie Mary, and Rémi Munos. Adaptive play in texas hold'em poker. In *European Conference on Artificial Intelligence - ECAI*, pages 333–337, 2008.

- Other:*
- [1] S. Girgin, J. Mary, Ph. Preux, and O. Nicol. Planning-based approach for optimizing the display of online advertising campaigns. In *MLOAD 2010 - NIPS 2010 Workshop on online advertising*, 2010.  
V. Gabillon, J. Mary, and Ph. Preux. Affichage de publicités sur des portails web. (best paper award). In *10e Extraction, Gestion des Connaissances (EGC)*, 2010.
  - [2] Frédéric Guillou, Romaric Gaudel, Jérémie Mary, and Philippe Preux. User Engagement as Evaluation: a Ranking or a Regression Problem?, In *RecSys 2014 Challenge Workshop*. October 2014.

---

## SUPERVISION OF PHD STUDENTS

- Janv. 2016-?:* Florian STRUB (50%) with Olivier PIETQUIN on reinforcement and deep learning for robotics. The project is also in collaboration with the S. BENGIO team at Univ. Montréal.
- Juil. 2015-?:* Romain WARLOP with Alessandro LAZARIC on tensor factorizations for online recommender systems. Funded by the company 55.
- 2013-2016:* Frédéric GUILLOU with Philippe PREUX and Romaric GAUDEL on merging of bandits and matrix factorization.
- 2010-2014:* Olivier NICOL with Philippe PREUX. *Data-driven evaluation of Contextual Bandit algorithms and applications to Dynamic Recommendation*.
- 2011-2012:* Sami NAANAME with Philippe PREUX and Tanguy URVOY. Funded by Orange. Resigned after first year to become risk analyst for a bank.

- 2015-17: Thibault DEREIGNECOURT as software engineer to work recommender systems based on pictures and deduplication by convolutional networks in collaboration with a startup and a french international company. He now hold the CTO position of the startup.
- 2015: Florian STRUB as engineer on the use of neural networks for matrix factorization on sparse datasets.
- 2013: Romain LABY as engineer on musical recommendation. Funded by Deezer.
- 2013: Romain LABY with Philippe PREUX as master student on analysis of flight records.
- 2013: Hai NGUYEN with Philippe PREUX as post doc on structured bandits.
- 2012: Thomas CHABIN as undergraduate student on algorithmic speed up of the data parser of Vowpal Wabbit. Our code divided execution time by 2 and has been merged in principal branch by John Langford.
- 2010: Geoffrey MEGARDON as undergraduate student on the implementation of a variational distance between ergodic processes.
- 2009: Olivier NICOL as master student on constrained recommender systems.

## D. COLLECTIVE RESPONSABILITIES

---

### RESEARCH ANIMATION

- 2016-: Member of the industrial transfer commission of Inria Lille.
- 2016: WebPage Chair de ICML'16.
- 2015: Best data analysis on retail data with Nuukik at "La nuit du commerce connecté" <http://www.retail-network.fr/>, (among 80 projects).
- since 2015: Expert for the Research Council of Norway.
- 2015: Member of local organisation and Webmaster of ICML'15.
- 2015: Co-organizer of a workshop (principal organizer Lihong Li, Microsoft Research Redmond) *Offline and Online Evaluation of Web-based Services* à WWW.
- 2013-15: Member of the CUMI group of Inria Lille advising the board for strategic decisions upon computing resources.
- 2014: **Victory** with Frederic Guillou and Romaric Gaudel of the **RecSys'14 challenge**.
- 2014: Co-organizer (principal organizer: Odalric Maillard, Technion) of the workshop *From bad models to good policies* at NIPS. Timothy Mann and Shie Mannor were also co-organizers.
- 2012: **Main organizer** of the Workshop *Exploration & Exploitation : new Challenges* at ICML'12. Co-organizers: Aurélien Garivier (ENST) Lihong Li (Yahoo! Research), Rémi Munos (Inria), Olivier Nicol (Inria), Ronald Ortner (Univ. Leoben), Philippe Preux (CRISTAL/Inria).
- 2012: Main organizer of the challenge *Exploration & Exploitation* at ICML'12. <http://explochallenge.inria.fr/>
- since 2012: Misc. media Interviews (France5, CB-News, Inriality, La Recherche)
- 2011: with Olivier Nicol **victory of challenge** *Exploration/Exploitation* organized by UCL at ICML'11 on Adobe data.
- since 2010: Expert for "Crédit Impôt Recherche" for french ministry. More than 10m€ of controls.
- 2006-2012: Member of the excellence network PASCAL 2.
- 2008: Co-Organizer of the Machine Learning Summer School at Ile de Ré.
- 2007: Artificial Poker competition at AAAI'07. 7<sup>e</sup>/17 (best european).

*Hiring:* 3 times member of the scientific committee to hire an Assistant professor.

*Referee:* Machine Learning Journal, ECML, CAP'13, EWRL'15, ICML'15, AAAI'16, IJCAI'16, ICML'16, NIPS'16, IJCAI'17 (SPC), KDD'17 (SPC), NIPS'17.

*Diffusion:* Presentations in high schools to promote computer science and machine learning.

*Invited Talks ( $\approx 45$  min):*

- Dec. 2016: Tutorial on Deep Neural Networks at "Journée Big Data" organized by the Lab. of Mathematics Painlevé at Lille.
- Dec. 2015: CRITEO recommender's meetup in Paris.
- Oct. 2014: ARC6 <http://www.arc6-tic.rhonealpes.fr/> online music recommendation.
- sept 2013: *Large-Scale Online Learning and Decision-Making Workshop* "Bandit point of view on recommenders" at Windsor organisé par John-Shawe Taylor (UCL)
- mai 2013: Recommender systems at "Journées rencontres AFIA/IHM".
- mai 2013: GdR Isis "Recommendation system from a bandit perspective" at GDR "Estimation et traitement statistique en grande dimension" - Télécom Paristech.
- mars 2013: "Small or big (data), make it sequentially!", J. Mary, Ph. Preux, invited talk at Euratechnologies.
- 2012: Machine learning for media, "la Presse au Futur" <http://www.lapresseaufutur.com/> ~ 600 participants.
- 2012: *Large-Scale Online Learning and Decision-Making Workshop* à Windsor organisé par John-Shawe Taylor (UCL)
- 2010: ENST Seminar (équipe d'Éric Moulines).
- 2009: SMILE Seminar.

---

#### RESPONSIBILITY AS HEAD OF CONTRACTS

2016: "What a nice place" on deep learning for style recommendation with Leroy Merlin.

2015: With Nuukik on seasonality for recommender systems.

2013: With Nuukik on coldstart for recommender systems.

2013 - 2014: With Deezer on sequential music recommendation.

2012 - 2015: Project "HERMES" (PIA) on recommender systems for retail.

2012 - 2013: with TBS on machine learning for medias and web audience prediction.

2012: With Effigenie (start-up) on thermal control of buildings by reinforcement learning.

2009 - 2011 : two contracts with Orange Labs on constrained contextual bandits and offline evaluation of recommender systems.

2008 - 2009 : with Vekia on machine learning for retail on data analysis of call center datas.

## E. TEACHING

---

#### RESPONSABILITIES

since 2014 : Elected member of the board of the department MIME of the University of Lille 3.

since 2015 : with Rémi GILLERON, head of master MIASHS for Web Analyst speciality.

2008 - 2013 : Head of master "Computer Science for Document Management".

- 2015 - 2016 :
- *Sites Web, blogs et systèmes de gestion de contenu*, L2 Mathématiques Informatique Appliquées aux Sciences Humaines et Sociales (MIASHS)  
8h CM, 16h TD.
  - *Programmation Objet* - L3 MIASHS  
8h CM, 16TD.
  - *Programmation fonctionnelle et programmation R* - M1 MIASHS  
12h CM, 12h TD.
  - *Programmation Web Avancée* - M2 MIASHS - spécialité Web Analyst  
24h CM, 24h TD.
  - *Machine Learning avec R* - M2 Décision et Analyse de Données (DAD) - École Centrale de Lille  
8h CM, 8h TD. Effectif estimé: 18 à 23 étudiants.
  - C2I - 50h TD.

Total : **216h eq. TD.**

- 2014 - 2015 :
- *Délégation à l'Inria Nord Europe.*
  - *Machine Learning avec R* - M2 DAD - École Centrale de Lille  
8h CM 8h TD.

Total : **20h eq. TD.**

- 2013 - 2014 :
- *Introduction au Machine Learning* - École Doctorale de Lille 1  
8h TD. Effectif: 10 étudiants.
  - *Algorithmique, Programmation, Système* - L1 MIASHS  
39h TD.
  - *Programmation 1* - M1 MIASHS mention ID  
16hCM, 8h TD.
  - *Programmation Objet et Design Pattern* - M2 MIASHS parcours Informatique et Document (ID)  
16h CM, 8h TD. Effectif: 7 étudiants.
  - *Développement web* - M2 MIASHS parcours ID - 8h CM, 16h TD.
  - *Algorithmique Avancée* - M1 MIASHS parcours ID  
8h TD.
  - *Machine Learning avec R* - M2 DAD - École Centrale de Lille  
8h CM, 8h TD.
  - C2I - 25h TD.

Total : **232h eq. TD.**

- 2012 - 2013 :
- *Demi-délégation at Inria Nord Europe.*
  - *Programmation 1* - M1 MIASHS mention IIES  
16h CM, 8h TD.
  - *Algorithmique et Programmation* - M1 MIASHS mention ID  
16h CM, 8h TD.
  - *Algorithmique Avancée* - M1 MIASHS parcours ID  
5h CM, 7h TD.
  - *Machine Learning avec R* - M2 DAD - École Centrale de Lille  
8h CM, 8h TD.

Total : **122h eq. TD.**