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FRANCE

Born January 19, 1983  
in Brest (France)

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## Positions

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| 2011–Now        | <i>Université d'Évry Val d'Essonne, France</i><br><b>Assistant professor</b> in Laboratoire Statistique et Génome, Évry, France.   |
| 04.2011–08.2011 | <i>Technische Universität München, Deutschland</i><br><b>Assistant lecturer</b> (advisor Prof. Nina Gantert)   |
| 09.2010–03.2011 | <i>Westfälische Wilhelms-Universität Münster, Deutschland</i><br><b>Postdoc</b> in an interdisciplinary project between the mathematical institute (advisor Prof. Nina Gantert) and the institute for evolution and biodiversity (advisors Prof. Erich Bornberg-Bauer and Kai Müller). |
| 09.2007–08.2010 | <i>Université de Grenoble, France</i><br><b>PhD student</b> in the Institut Fourier.   |

## Education

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| 2007–2010 | <i>Université de Grenoble, France</i><br><b>PhD</b> : <i>On two mathematical problems of phylogeny reconstruction.</i><br>Supervised by Didier Piau, Professor in institut Fourier, Grenoble, France.<br>Defended on July 9, 2010. Examiners: B. Prum, M. Steel, A. Bar-Hen, G. Besson, M. Gouy and D. Piau.   |
| 2006–2007 | <i>ENS Cachan – Université Grenoble 1, France</i><br><b>Master's degree in Mathematics</b> ( <i>Mention Bien</i> ), majors in Probability Theory and Statistics, awarded with honours.   |
| 2005–2006 | <i>ENS Cachan – Université Rennes 1, France</i><br><b>Agrégation de Mathématiques</b> : national competitive examination for high-school/higher education teachers. ( <i>Rank: 108/290</i> )   |
| 2004–2005 | <i>Université Grenoble 1, France</i><br><b>Maîtrise de Mathématiques</b> ( <i>Mention Très Bien</i> ), fourth year of University studies in Mathematics, awarded with honours.<br>Passed <b>ENS Cachan examination</b> an institution of higher education providing a specialized training to students who will become professors and researchers in their fields. |
| 2003–2004 | <i>Université Grenoble 1, France</i><br><b>Licence de Mathématiques</b> ( <i>Mention Très Bien</i> ), equivalent to a Bachelor's degree in Mathematics, awarded with honours.  |
| 2000–2003 | <i>Lycée naval, Brest</i><br><b>Classe Préparatoires</b> : a course preparing for highly competitive national examinations to Grandes Écoles, including university-level engineering schools.  |

## Thèmes de recherche

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**Markov processes:** Markov models of DNA evolution, interacting particle systems.

**Phylogeny reconstruction:** branch length estimation, Bayesian statistics.

## Publications

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FALCONNET M. and BEHRENS S. (2011) (accepted for publication in Journal of Computational Biology).  
Accurate estimations of evolutionary times in the context of strong CpG hypermutability.

FALCONNET M. (2010). Priors for the Bayesian star paradox,  
*Mathematical Biosciences*, 228(1): 90-99.

FALCONNET M. (2010). Phylogenetic distances for neighbour dependent substitution processes,  
*Mathematical Biosciences*, 224(2): 101-108.

## Teaching Experiences

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2011–2012	<i>Université d'Évry Val d'Essonne</i> <b>Lecture</b> : Refreshing course in probability theory and biological sequence analysis for graduate students (20h, in English). <b>Tutorials</b> : biological sequence analysis for graduate students (10h). <b>Lecture</b> : Markov chains and biological sequence analysis for Bachelor students (16.5h).
2010–2011	<i>Technische Universität München, Deutschland</i> <b>Tutorials</b> : Probability Theory (36h, in English).
2009–2010	<i>Université Grenoble 1, France</i> <b>Lectures and Tutorials</b> : Introduction to linear algebra for undergraduate students (76h).
2007–2009	<i>Université Grenoble 1, France</i> <b>Tutorials</b> : Introduction to linear algebra for undergraduate students (2×64h).

## Languages

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French: Mother tongue

English: Fluent

German, Spanish : Intermediate level

## Computer Skills

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Scientific computing (Maple, Matlab, Scilab), Programing (C, Python), Office (Word, Excel).

Working knowledge of  $\LaTeX$ , Linux.