Paul Bastide

PhD. Candidate in Statistics

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Educational Background

2014 – 2017 **PhD Thesis**, *Université Paris Sud*.
Shifted stochastic processes evolving on trees: application to models of adaptive evolution on phylogenies. Supervised by **Stéphane Robin** (MIA, UMR 518 AgroParisTech/INRA) and **Mahendra Mariadassou** (MaIAGE, UR 1404 INRA).

Fall 2015 **Fulbright Scholar**, *University of Wisconsin - Madison*.
I was granted with a Fulbright fellowship to work with **Cécile Ané** at the Departments of Statistics and Botany. During my stay, I was working in the **Sytsma Lab**.

2013 – 2014 **Master2 MathSV**, *Université Paris Sud - École Polytechnique - ENS Cachan*, Mathematics For Life Sciences.
Master's degree, awarded with highest honors.

2010 – 2014 **Grande École**, *École Polytechnique*.
(One of France's leading schools of science and engineering.)
Majoring in Applied Mathematics, track : "Mathematics: Applications to Biology and Medical Science".

Publications

2017 C. Solís-Lemus, P. Bastide, and C. Ané. PhyloNetworks: Julia package for phylogenetic networks. *Submitted*, 2017.

P. Bastide, C. Ané, S. Robin, and M. Mariadassou. Inference of Adaptive Shifts for Multivariate Correlated Traits. *Submitted*, 2017.

2016 P. Bastide, M. Mariadassou, and S. Robin. Detection of adaptive shifts on phylogenies by using shifted stochastic processes on a tree. *Journal of the Royal Statistical Society: Series B (Statistical Methodology)*, 2016.

2014 P. Bastide and T. David. Discours de réception d'Édouard Estaunié à l'Académie française : définitions croisées de la persona d'un académicien scientifique. *Épistémocritique*, 14(Greffes), 2014.

Softwares

PhylogeneticEM (Main Author) An R package for autoamtic shift detection on phylogenies. Available on the CRAN and on GitHub.

PhyloNetworks (Contributor) A Julia package for statistical inference, data manipulation and visualization of phylogenetic networks. Available on GitHub.

Talks and Posters in Conferences

13/06/2017 **MCEB 2017 (Mathematical and Computation Evolutionary Biology)**, *Porquerolles*, Poster.

30/05/2017 **49èmes Journées de Statistique de la SFdS**, *Avignon*, Talk.

28/06/2016 **JOBIM 2016 (Journées Ouvertes en Biologie, Informatique et Mathématiques)**, *Lyon*, Talk.

19/04/2016 **JPS 2016 (Colloque Jeunes Probabilistes et Statisticiens)**, *École de Physique des Houches*, Talk.

22/06/2015 **MCEB 2015**, *Porquerolles*, Poster.

02/06/2015 **47èmes Journées de Statistique de la SFdS**, *Lille*, Talk.

Seminars and Workshops

23/02/2017 **Bioinformatics Team Meeting**, *INRA, Jouy-en-Josas.*
14/11/2016 **StatInfOmics Team Meeting**, *MaIAGE, Jouy-en-Josas.*
04/10/2016 **Journées des maths-info de l'INRA**, *Mallemort.*
27/06/2016 **AgroParisTech Seminar**, *Paris.*
23/06/2016 **Université Paris Sud Statistics Seminar (PhD Session)**, *Orsay.*
09/06/2016 **Université Paris Descartes PhD Seminar**, *Paris.*
23/06/2016 **EDMH PhD Seminar**, *Paris.*
23/06/2016 **SupAgro Seminar**, *Montpellier.*
10/02/2016 **Sauquet Lab Seminar**, *Université Paris Sud - Orsay.*
19/11/2015 **Sytsma Lab Seminar**, *University of Wisconsin - Madison.*
18/11/2015 **University of Wisconsin Statistics Seminar**, *Madison.*
22/07/2015 **Morlon Lab Seminar**, *IBENS, Paris.*
23/06/2016 **SSB Seminar**, *Jouy-en-Josas.*
16/02/2015 **MaAIGE Internal Seminar**, *Jouy-en-Josas.*

Teaching

2014 – 2017 **Teaching Assistant**, *Université Paris Sud*, (details below).

Springs 2015/16/17 Introduction to Mathematical Modeling. Third year Bsc students in Applied Mathematics (L3).

Fall 2016 Introduction to Statistics. Second year Bsc students majoring in Biology (L2).

Fall 2016 Mathematics for Biology. First year Bsc students majoring in Biology (L1).

Spring 2016 Measure Theory and Probabilities. Third year Bsc students in Mathematics (L3).

Fall 2014 Introduction to Statistics. Third year Bsc students majoring in Biology (L3).

2011 – 2012 **Tutor**, *GEPPM.*
A national program to help underprivileged high school students to continue their studies after high school. One course a week.

Scientific Projects and Internships

Spring 2014 **Internship**, *UMR 518 AgroParisTech / INRA (Paris)*, Supervised by Stéphane Robin and Mahendra Mariadassou, *Shifted Phylogenetic Comparative Methods.*

2013 – 2014 **Project**, *UMR de Génétique Végétale du Moulon (Saclay)*, Supervised by Christine Dillmann and Sylvie Huet, *Analysis of the relations between the phenotype and the genotype on yeast organisms, combining genomic, proteomic and metabolic data.*

Spring 2013 **Internship**, *International Institute for Climate and Society (IRI) at Columbia University (New York)*, Supervised by Rémi Cousin and Daniel Ruiz Carrascal, *Construction and Study of a Multi-Model Framework For Short Term Predictions of a Malaria Epidemic in the Region of Kericho, Kenya.*

Fall 2012 **Project**, *CMAP (École Polytechnique)*, Supervised by Stéphane Gaubert, *How to control the Chikungunya epidemic in La Réunion.*

2011 – 2012 **Project**, *CMAP (École Polytechnique)*, Supervised by Amandine Veber, *Modeling the development of terrorists groups.*

Work Experience

Summer 2012 **Internship**, *Intech-NSK*, Novosibirsk (Russia).

2010 – 2011 **Internship**, *l'Enfant @ l'Hôpital*, French association.

Skills

French	First language	Russian	Notions
English	Spoken and written	Spanish	Notions
Desktop tools	MS Office, LaTex, Git	Programing	R, Rcpp, Julia, Matlab