Virginie Stanislas | PhD student

67 rue du docteurEmile Roux – 94000 Fresnes – France
+33 (0)6 25 13 01 78 • virginie.stanislas@orange.fr
http://www.math-evry.cnrs.fr/members/Vstanislas/welcome
virginie.stanislas • vstanislas

Education

2014–current **PhD Candidate in Statistical Genetics**
University of Paris-Saclay - Laboratory for Mathematic and Modeling, Évry - France
Thesis Topic: *"High dimensional regression and Gene-Gene interactions in GWAS: application to ankylosing spondylitis"*
Supervisors: Christophe Ambroise and Cyril Dalmasso (Univeristy of Évry)

2012–2014 **Master of Science (MSc) in Statistics equivalent (Diplôme d'ingénieur)**
ENSAI - National School for Statistics and Information Analysis, Rennes - France
Specialization: Biostatistics

2013–2014 **Master of Science in Modelisation in Clinical Pharmacology and Epidemiology**
University of Rennes 1 and ENSAI (joint degree), Rennes - France
Specialization: Epidemiology, Additional education focused on scientific research

Spring 2012 **Erasmus Student Exchange Program**
Catholic University of Louvain, Louvain la Neuve - Belgium
Master in Population and Development Studies, Specialization: Demography

2011–2012 **First year of Master (MSc) in Mathematics Applied to Social Sciences**
University of Aix-Marseille, Marseille - France

2008–2011 **Bachelor of Science (BSc) in Mathematics Applied to Social Sciences**
University of Aix-Marseille, Aix-en-Provence - France

Experience

2014 **Internship in Statistical Genetics (Master thesis)**
Apr. - Sep. *LaMME - Laboratory for Mathematics and Modeling*, Évry - France
High dimensional regression and block epistasis in GWAS: application to ankylosing spondylitis
Detailed achievements:
- Reviewed available literature in English;
- Simulation studies and programming with R;
- Analysed of GWAS data;
- Used of penalysed regression methods.

2013 **Internship in Epidemiology**
Jun. - Aug. *INSPQ - National Public Health Institute of Quebec*, Montréal - Canada
Time series analysis on relationship between temperature and the number of daily birth in urban Montreal.
Detailed achievements:
- Reviewed available literature in English;
- Applied the statistical methods found (Distributed Lag Non-linear Models) with R and SAS;
- Advised the team of the appropriate use of this method.

2011 **Internship Sensory Analysis Research Assistant**
Feb. - Apr. *Eurofins Marketing Research*, Bouc Bel Air - France

Research activities

Presentations

Jun. 2016 **Open Days in Biology, Computer Science and Mathematics (JOBIM)**, Lyon
"Eigen-Epistasis for detecting Gene-Gene interactions in GWAS"

Jun. 2016 **48th Days of Statistics - French Society of Statistics (SFdS)**, Montpellier
"Eigen-Epistasis for detecting Gene-Gene interactions in GWAS"

Sep. 2015 **Seminar, Statistics Mathematics and Applications**, Fréjus
"Searching gene-gene interactions in GWAS using a Group Lasso approach"

Jun. 2014 **46th Days of Statistics - French Society of Statistics (SFdS)**, Rennes
"Utilization and evaluation of the concordance of several clustering methods in a clinical dataset of two rare diseases"

Poster

Mar. 2016 **DAGStat 2016 - Statistics under one umbrella**, Gottingen - Germany
"Eigen-Epistasis for detecting Gene-Gene interactions in GWAS"

Nov. 2015 **Statistical Analysis of Massive Genomic Data**, Évry
"Detecting gene-gene interactions in GWAS using a Group Lasso approach"

Invitation

Aug. 2016 **Invitation to visit the Applied Statistics Group**, Mathematical Institute of the Heinrich Heine University, Dusseldorf - Germany

Mar. 2016 **Invitation to visit the Applied Statistics Group**, Mathematical Institute of the Heinrich Heine University, Dusseldorf - Germany

Publications

[1]Stanislas V, Ambroise C, Dalmasso C. Eigen-Epistasis for detecting Gene-Gene interactions. under review. 2016;Available from: `https://hal.archives-ouvertes.fr/hal-01275624v3`.

[2]Benmarhnia T, Auger N, Stanislas V, Lo E, Kaufman JS. The Relationship Between Apparent Temperature and Daily Number of Live Births in Montreal. Maternal and Child Health Journal. 2015;19(12):2548–2551. Available from: `http://dx.doi.org/10.1007/s10995-015-1794-y`.

Software

Jan. 2016 **Package GGEE**, This package implements the group lasso Gene-Gene Eigen Epistasis (G-GEE) method for detecting epistasis at the gene level. The proposed functions allow to compute interaction variables for each pair and to fit a general model with a Group Lasso penalty. The package allows to generate gene structured genotype data and continuous phenotype. https://github.com/vstanislas/GGEE

Teaching

	Course	Level	TD
2014–2015	○ Statistics and probabilities	○ L2 Biology	○ 25h
	○ Real analysis	○ L1 Mathematics and economy	○ 39h

Formation

Conferences

Jun. 2015	**46th Days of Statistics - French Society of Statistics (SFdS)**, Lille	6h
Feb. 2015	**SMPGD - Workshop on Statistical Methods for Post-Genomic Data**, Munich - Germany	12h

Courses

Sep. 2015	**Summer School, Statistics Mathematics and Applications**, Fréjus	6h
Jul. 2015	**Summer Institute in Statistical Genetics**, Seattle - USA	60h
May 2015	**English intensive internship**, Évry	40h
Jan. 2015	**Teacher training**, Évry	36h

Languages

French: Native

English: B2 level *CEFRL (TOEIC 880/990, Jan. 2013)*

Spanish: A2 level

Computer skills

Statistical software: SAS, R

Office software: Microsoft office, LaTeX

Languages: C++, java

Extracurricular activities and interests

- Extracurricular activities: Member of the ENSAI Business Networking Forum Team (2012 - 2013)
- Sports: Running, swimming
- Traveling: Turkey, Norway, Netherlands, United States, Mexico, Eastern Europe