Thomas SELIG
Born on 22nd December, 1987, in Paris
Married
Flat D
1 Grove Park Gardens
Glasgow G20 7JB
United Kingdom
thomas.selig@strath.ac.uk
https://personal.cis.strath.ac.uk/thomas.selig/

Formation:

July 2015-Present:
Research Associate at the CIS (Computer and Information Sciences), University of Strathclyde, Glasgow.

Jan.-June 2015:
ATER ("Attaché Temporaire d'Enseignement et de Recherche") at the IMB ("Institut de Mathématiques de Bordeaux"), Bordeaux University.

2011-2014:
PhD student in Computer Science under the supervision of Prof. Jean-François Marckert at the LaBRI ("Laboratoire Bordelais de Recherche en Informatique"), Bordeaux University.
Thesis title: "Convergence de cartes et tas de sable".
Defended my PhD Thesis, awarded the title of Doctor in Computer Science of the University of Bordeaux, Mention Très Honorable.

2010-2011:

Fourth and final year of study at the ENS ("Ecole Normale Supérieure") in Paris.
Defended my Masters Thesis "*Gluing leaves of large random binary trees"*, prepared under the supervision of Prof. Jean-François Marckert.
Awarded my Masters degree in "Mathématiques : Probabilités et Statistiques" by the University Paris XI, Mention Bien.
In January 2011, began my PhD at the LaBRI under the supervision of Prof. Jean-François Marckert.

2009-2010:
Third year of study at the ENS.
Completed the second year of my Masters degree at the University Paris XI.

2008-2009:
Second year of study at the ENS.
Began the second year of my Masters degree at the University Paris XI.
Awarded the "Agrégation de Mathématiques – Option Probabilités et Statistiques", ranked 47th out of 250.

2007-2008:
First year of study at the ENS.
Awarded my Bachelors degree in Mathematics by the University Paris VII, Mention Bien.
Defended my short Thesis for first year of Masters degree " L'intégration dans les groupes topologiques localement compacts et ses applications", co-written with Xiao Lu, under the supervision of Prof. Thierry Lévy.
Awarded the first year of my Masters degree in Mathematics by the University Paris VII, Mention Assez Bien.

2006-2007:
Second year of Preparatory Classes in Mathematics (MP*) at the Lycée Louis-le-Grand, Paris.
Admitted to the ENS, ranked 30.

2005-2006:
First year of Preparatory Classes in Mathematics (MPSI) at the Lycée Louis-le-Grand, Paris.

Publications:

A natural stochastic extension of the sandpile model on a graph
With Yaoban Chan and Jean-François Marckert.
Published in JCTA, Volume 120, Issue 7, September 2013, Pages 1913–1928.

Representations of stack triangulations in the plane
Submitted (September 2014). Preprint: ArXiv:1309.2566.

A family of increasing random surfaces
In preparation.

PhD Thesis:

Convergence de cartes et tas de sable
Under the supervision of Prof. Jean-François Marckert.
Accepted for defense. To be defended on 11th December, 2014.

Other scientific papers:

L'intégration dans les groupes topologiques localement compacts et ses applications
Co-written with Lu Xiao, under the supervision of Prof. Thierry Lévy.
First year of Masters, short Thesis.

Gluing leaves of large random binary trees
Under the supervision of Jean-François Marckert.
Masters Thesis.

Un modèle de carte aléatoire : le collage d'arbres binaires
Magistère Thesis for the ENS: an introduction to my research domain.

Seminars and conferences attended:

March 2014: "Journées ALEA" at the CIRM, Luminy.

February 2014: JCB ("Journées Combinatoires de Bordeaux") at the LaBRI, Bordeaux.

March 2013: "Journées ALEA" at the CIRM, Luminy.

February 2013: JCB ("Journées Combinatoires de Bordeaux") at the LaBRI, Bordeaux.

March 2012: "Journées ALEA" at the CIRM, Luminy.

February 2012: JCB at the LaBRI, Bordeaux.

December 2011: Conference in memory of Ph Flajolet at the University of Jussieu, Paris.

November 2011: ANR "A3" meeting at the University of Orléans.

March 2011: Colloquium in memory of Benoît Mandelbrot at the University Polytechnique, Paris.

March 2011: "Journées ALEA" at the CIRM, Luminy.

January 2011: JCB at the LaBRI, Bordeaux.

September 2010: PhD students course "Arbres aléatoires et coalescents" at the CIRM, Luminy.

Talks:

Representations of stack triangulations in the plane
January 2015, Graz Discrete Mathematics and Optimization Seminar, Graz.

Dessins de triangulations en pile
March 2014, “Journées ALEA” Conference, CIRM, Luminy.

Une extension stochastique du modèle du tas de sable sur un graphe
February 2014, JCB Conference, LaBRI, Bordeaux.

Dessins de triangulations en pile
October 2013, Workgroup “Probabilité et Informatique”, LaBRI, Bordeaux.

Une extension stochastique du modèle du tas de sable sur un graphe
March 2013, “Journées ALEA” Conference, CIRM, Luminy.

Une extension stochastique du modèle du tas de sable sur un graphe
October 2012, Workgroup “Combinatoire Enumérative et Algébrique”, LaBRI, Bordeaux.

Un modèle de carte aléatoire : le collage d'arbres binaires uniformes
October 2010: Magistère Thesis defense, ENS, Paris.

Gluing leaves of large random binary trees
September 2010: Masters Thesis defense, LaBRI, Bordeaux.

Convergence des arbres de Galton-Watson généraux vers l’arbre continu uniforme
June 2010: as part of the Masters course “Arbres Aléatoires” at the University Paris 6.

Intégrales matricielles et énumération de cartes
April 2010: as part of the Masters course “Matrices aléatoires” at the University Paris 11.

Marches Aléatoires dans le plan
October 2008: Workgroup “Probabilités”, ENS, Paris.

L’intégration dans les groupes topologiques localement compacts et ses applications
June 2008: first year of Masters short Thesis defense, ENS, Paris.

Equations différentielles autonomes en dimension 2
December 2007: as part of the first year of study at the ENS, Paris.

Teaching:

2015:
Mathématiques – Probabilités, MNESS (“Mise à Niveau pour les Etudes Scientifiques Supérieures”) at the Bordeaux University. An A-Level course in Probability Theory: basic notions, trees, conditional probability, random variables (discrete and continuous), De Moivre-Laplace theorem, sampling.
C2 (Certificat Informatique et Internet), various students at the Bordeaux University. Basic notions of Linux operating system, Open Office pack.

2013-2014:
Statistiques pour l'Informatique, third year of Bachelor's degree in Computer Science at the Bordeaux University. Basic notions of Probability Theory, Law of Large Numbers, Central Limit Theorem.
Base de Données, third year of Bachelor's degree in Computer Science at the Bordeaux University. A somewhat theoretical approach to Databases: Relational Algebra, Relational Calculus, Normalisation, SQL language.

2012-2013:
Statistiques pour l'Informatique, third year of Bachelor's degree in Computer Science at the Bordeaux University.

Informatique Théorique 2, third year of Bachelor degree in Computer Science at the Bordeaux University. Automata, grammars.

2011-2012:
Algorithmique et Structure de Données 1, second year of Bachelor's degree in Computer Science at the Bordeaux University. Complexity, Recursive algorithms, Stacks and Queues, Trees, Dictionnairies.
C2 (Certificat Informatique et Internet), various students at the Bordeaux University. Basic notions of Linux operating system, Open Office pack.

2007-2010, 2015:
Private Tutoring: taught Mathematics and Physics to students at various levels, ranging from high school (final two years, Section S) to Preparatory Classes in Mathematics (first and second years).

Computer skills:

Operating systems: *Windows*, *Linux*.

Programming: *Python*.

LATEX, *Open Office*.

Notions of *Sage*, *Mathlab*, *Maple* and *SQL*.

Languages:

Completely bilingual French and English (schooling in French, 2 mother-tongue English parents).

Notions of German, Spanish.

Extracurricular activities:

Singing:
1996-2001: Sang in the Maîtrise de Radio France, as part of a “mi-temps” school course (normal school studies in the morning, musical activities in the afternoon).
2001-2010: Sang in the Notre Dame de Paris Youth Choir.
2010-2015: Singing in the Groupe Vocal Arpège, Bordeaux.
September 2012 - January 2014: Treasurer and Board Member of the Groupe Vocal Arpège.

Musical Instruments:
Studied classical guitar for 12 years at the Conservatoire des Lilas, Paris.
Studied piano for 2 years at the Maîtrise de Radio France, self-taught afterwards.

Cricket:
2003-2010: Played for PUC (Paris University Club) cricket team in Paris.
2003-2007: Represented the French national age grade teams at U15 (2003), U17 (2004) and U19 (2005 and 2007) levels.
2006-2009: Vice-captain of PUC III cricket team.
2009-2010: Captain of PUC III cricket team.
2010-2015: Member of BGCC (Bordeaux Giscours Cricket Club) in Bordeaux.
November 2012-July 2015: Club Secretary and Board Member of BGCC.

Others:
2001-2005: Played tennis at the Tennis Club des Lilas in Paris. Awarded “balle rouge” level.
2001-2005: Played Scrabble at the Scrabble Club des Lilas in Paris. Won the Junior “Non Classé” National Championships in 2003.

Appendix: a brief explanation of the French academic system

The grading system:

The French grading system is based on a 20-point grading scale. For various diplomas, a "Mention" (honour) may be awarded for an average grade. These are:

- Mention Très Bien (very good): average grade of 16 or more.
- Mention Bien (good): average grade of 14-16.
- Mention Assez Bien (quite good): average grade of 12-14.

Post-Baccalauréat (A-levels) studies:

Not all French people wishing to continue their studies post-Baccalauréat will go to university. Instead some (traditionally the ones with better grades) will go to study in "*classes préparatoires aux grandes écoles"* (which are called "Preparatory Classes" in this CV). These consist of two years (extendable to three or four years) which act as a preparatory course with the main goal of training undergraduate students for enrollment in one of the "*grandes écoles".*
The *"grandes écoles"* are higher education establishments outside the main framework of the French university system, and have competitive entrance exams. For instance, in Mathematics, the "Ecole Normale Supérieure" (ENS) in Paris accepts 40 students every year.
There are four ENS in France, located in Paris, Lyon, Cachan and Rennes. These schools main objective is to train researchers and professors. While they do not deliver academic degrees, they do have partnerships with various universities which allow students to obtain degrees from these universities.