Sabrina Ouazzani
sabrina.ouazzani@lacl.fr

Born 08/16/1990 in Nantes
http ://www.lacl.fr/~souazzani

$\boxed{\text{\textbf{Doctor in Theoretical Computer Science}}}$

▷ **current position :** I am currently ATER (one year research and teaching position) in the Paris-Est Créteil University. I teach in the Sénart-Fontainebleau University Institute of Technology in Sénart and do my research in the Algorithmic, Complexity and Logic laboratory (LACL) in Créteil.

▷ **Research key words :** non classical models of computation, infinite time, admissible ordinals, constructible hierarchy, Turing degrees

Publications

Published

- To appear in LNCS, proceedings of CiE 2018 : Merlin Carl, Sabrina Ouazzani and Philip Welch,**Taming Koepke's zoo**.

- Lecture Notes in Computer Science, Proceedings of the Computability in Europe 2017 : Unveiling Dynamics and Complexity : Merlin Carl, Bruno Durand, Grégory Lafitte and Sabrina Ouazzani, **Admissibles in gaps**

- December 16, defended in Montpellier (France)

  - PhD **From algorithmics to logics through infinite time computation**.
  - I mainly worked on the structure of gaps in the clockable ordinals of infinite time Turing machines and their links with admissible ordinals.

Submitted

- **Cheap Non-standard Analysis and Computability**, with Olivier Bournez (LIX, École Polytechnique)

- **Infinite Time Turing Machines = Continuous Ordinary Differential Equations**, with Olivier Bournez (LIX, École Polytechnique)

Past talks

- **Computing to the infinite with Ordinary Differential Equations** The tenth scandinavian logic symposium, Gothenburg (Sweden), June 18

- **Computing to the infinite with Ordinary Differential Equations** ALGORITHMIC QUESTIONS IN DYNAMICAL SYSTEMS, Toulouse (France), March 18

- **Infinite time Turing machines : what about gaps in the clockable ordinals ?** Third Nordic Logic Summer School, Stockholm (Sweden), August 17

- **Infinite time Turing machines, an introduction to gaps.** Institute for Mathematical Sciences (IMS) Graduate Summer School in Logic, Singapore, July 17

- **A brief story of gaps in the infinite time Turing machines.** Bristol Logic Seminar, University of Bristol (England), May 17

- **A mixture of computability and ordinals, the infinite time Turing machines.** Konstanz Women in Mathematics (KWIM) Lectures Series, Konstanz University (Germany), April 17

- **Let's compute through infinite time!** MC2 team seminar LIP ENS Lyon, CANA team seminar LIF Aix-Marseille University, LACL laboratory seminar Paris-Est Créteil University, January 17 – CRIL laboratory seminar Artois University (Lens), February 17 – LIFO laboratory, Computabilites Days and New Words of Computation workshops (Orléans), April 17

- **Some ordinal time algorithmics**, Computability days, Nice, April 16

- **Ordinal time computation : a presentation**, Spring school of the CNRS group of research called mathematical computer science (GDR IM), Strasbourg, April 16

- **Introduction to the infinite time Turing machines**, Algebra and Topology seminar, IMAG, Montpellier, September 2015 / **Non-computation times of infinite time Turing machines**, Eco-Escape seminar, Lirmm, Montpellier, June 2015

- **Poster infinite time Turing machines**, Doctiss (PhD students conference of the I2S Graduate school), Montpellier, June 2015 / **Introduction to the infinite time Turing machines**, Semindoc (PhD students seminar), Lirmm, Montpellier, May 15 / **My PhD in 180s format**, Spring school of the GDR IM, Orléans, March 15

Organisation of scientific events and collective tasks

Scientific events.

- 2017 – : Initiation of the creation and responsible of the **Transfinite Computations** (TraC) special group of interest of the association Computability in Europe

- October 2017 : Involved in the organisation of the Interdisciplinary Symposium **On the Infinite** in the Institut Henri Poincaré (Paris).

- 2014–2015 : Organisation of the **PhD students workshop** of the Lirmm, where PhD students present their work as well as semidocti days, bi-annual fun and science popularization days for everybody

- April 2014 : Organisation of the **Computability days** (Montpellier)

Collective tasks.

- **Elected in the PhD students council** of the Lirmm from December 2014 to February 2016. The aim of this council is to provide support, mediation and prevention in all problems the PhD students can encounter in their workplace. It brings forward their needs to the direction, and animate the social student life of the lab.

- **Head of the council** from May 2015 to February 2016.

- **Representant of the Computer science PhD students** in the I2S Graduate school from November 2014 to March 2016.

Teaching

Teaching in the **Sénart-Fontainebleau IUT** (University Institute of Technology), 2016–2018 (384h).

- First year : Linear Algebra, Analysis, Discrete Mathematics (set theory, arithmetic, propositional calculus, graph theory, automata theory ...), Databases (SQL, PL/SQL ...). In charge of the previous classes (lectures, tutorials, practical work).

Teaching in the **Montpellier Faculty of Science**, 2012–2016 (235,5h).

- master 1 : some tutorials of « Information Theory » and « Computability » (9h) – L3 : tutorials/practical work (C++) « Graph algorithms » (34,5h) – L2 : tutorials/practical work (Oracle) « Information systems and Databases » (66h), tutorials/practical work (C) « Algorithms and linear data structures » (67,5h), tutorials/practical work (Ocaml) « Logic (basic concepts) » (36h) – L1 : practical work(Unix, spreadsheets) « Basic concepts in Computer science » (19,5h), some tutorials of « models of computation » (3h)

- June–July 2015 : **Internship supervision** of a L2 student (discovering of Computability)

Curriculum and diplomas

- ▷ **Sept 2018 – august 2019 :** post-doctoral position (DigiCosme Labex) in the École Polytechnique, LIX laboratory

- ▷ **Sept 2016 – august 2018 :** ATER (two years research and teaching position) in the Paris-Est Créteil University, LACL laboratory

- ▷ **December 2016 :** PhD in Computer Science, Montpellier University, LIRMM laboratory

- ▷ **December 2013 :** Engineer diploma in Computer Science, Polytech'Montpellier

- ▷ **June 2013 :** Master 2 in Computer Science, specialised in Modelisation, Combinatorial optimization and Agorithmics, Montpellier II University

- ▷ **June 2008 :** Scientifical French "baccalauréat" (speciality Mathematics) with Very Good mention and English European mention, with option Latin.

- ▷ **2007–2008 :** Compete in the French "concours généraux des lycées" in History, Geography and Physics-Chemistry.

- ▷ **Master 2 internship, February–June 2013 :** Transfinite models of computation.
  Lirmm, Escape (Team Systèmes Complexes, Automates et Pavages), supervisor Grégory Lafitte.

- ▷ **Master 1 internship, summer 2012 :** Study of the combinatorial properties of the Richard Laver tables.
  Lirmm, Escape (Team Systèmes Complexes, Automates et Pavages), advisor Grégory Lafitte.

- ▷ **Licence 3 internship, June 2011 :** Bibliographical summary about perfect graphs.
  Lirmm, (Team Algorithmique, Graphes et Combinatoire), advisor Christophe Paul.

Main hobbies

- Dance : modern jazz, street jazz, contemporary, bollywood/kathak, belly dance, rock'n'roll.
- Photography.
- Board and role-playing games.