# Strozecki Yann

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#### Education

2007-present

PhD Student in computer science (complexity and logic), Paris Diderot University, Equipe de Logique Mathématique, Paris, France.
Under the supervision of A. Durand

2006-2007

Master of mathematical logic and foundations of computer science, Paris Diderot University, Paris, France.

2003-2007

**ENS Lyon**, *Ecole Normale supérieure de lyon*, Lyon, France. General education in mathematics and computer science

2001-2003

**Lycée Charlemagne**, Paris, France. Preparation for the entrance to "Grandes Écoles"

#### Experience

2007-2009

**Organizer of the student seminar**, *Paris Diderot University, Equipe de Logique Mathématique*.

2007-2009

**Representative of the students**, *Paris Diderot University, Equipe de Logique Mathématique*.

2006-2007 (4 months)

**Master's thesis**, *Paris Diderot University*, *Equipe de Logique Mathématique*, Subject: Holographic algorithms, supervised by <u>Arnaud Durand</u>.

2005 (2 months)

**Internship**, *Universitat Paderborn*, <u>Algebraic complexity and Algorithmic Algebra</u>, Subjects: Fast matrix multiplication by group representation techniques, Traveling salesman in an algebraic model, supervised by Peter Burgisser.

2004 (2 months) Internship, *IMJ*, Théorie des groupes représentations et applications. Subject: Orbits of Nilpotent Matrices and Group representations, supervised by Jean-Yves Charbonnel

# Languages and Computer Skills

Languages

Native French, fluent English, basic German.

Programming

LaTeX, Java, C, OCaml, Cog.

#### Research Themes

- Complexity of enumeration
- Matroid decomposition
- Logic on finite structures
- Complexity of computing/interpolating polynomials
- Polynomial identity testing

### **Teaching**

- 2010 **Elements of algorithmic (EA4)**, *Licence in Computer Science, Paris 7-Diderot University*, Paris, France.
  Practicals (32h per year).
- 2010 Elementary background in logic and mathematics for computer science (PF1), Licence in Computer Science, Paris 7-Diderot University, Paris, France. Lectures (32h per year).
- 2009 **Data types and object in java (IF2)**, Licence in Computer Science, Paris 7-Diderot University, Paris, France.
  Practicals (64h per year).
- 2007 Introduction to computer science and programming (IF1), Licence in Computer Science, Paris 7-Diderot University, Paris, France.
  Practicals (64h per year).
- 2006-2007 **Oral examination in mathematics**, *Preparation for the entrance to "Grandes Écoles"*, *Lycée Charlemagne*, Paris, France.

  Oral examination (64h per year)

#### Selected Communications

- Coming Decomposition of hypergraphs, Workshop in Logic, Combinatorics and Computation, Brno, Czech Republic .

  Invited talk
- February 2010 **Matroid decomposition**, *Séminaire de l'équipe AIGCo du LIRMM*, Montpellier, France.

  Invited talk
- January 2010 **Polynomial interpolation and enumeration**, *Séminaire du LAIC*, Clermont-Ferrand, France.

  Invited talk
- December 2009 **Matroid decomposition**, *Séminaire du groupe Graphes et logique du LABRI*, Bordeaux, France.

  Invited talk
- December 2008 Introduction to complexity, Séminaire des thésards de l'équipe de logique , Paris, France.
  Invited talk
  - October 2007 **Holographic algorithms**, *Groupe de travail MC2 de l'ENS Lyon*, Lyon, France. Invited talk

# **Submitted Articles in Complexity**

- [S1] Y. Strozecki. A logical approach to decomposable matroid. Discrete Applied Mathematics.
- [S2] Y. Strozecki. Enumeration of the monomials of a polynomial and related complexity classes. In *Mathematical Foundation of Computer Science*, 2010.
- [S3] D. Duris and Y. Strozecki. On the complexity of two acyclic subhypergraphs problems. In *European Symposium on Algorithms 2010*, 2010.

# **Manuscripts and Techreports**

[M4] Y. Strozecki. Algorithmes holographiques. Master's thesis, Université Paris Diderot, 2007.

# Sidework: Submitted Article in Image Processing

- [15] J.Salmon and Y. Strozecki. From patches to pixels in semi-local methods: Weighted average reprojection. *Transaction on Image Processing*.
- [16] J.Salmon and Y. Strozecki. From patches to pixel in non-local methods: Weighted-average reprojection. In *International Conference on Image Processing*, 2010.