

Hugo GIMBERT
32 years old, French

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Education

- 2002–06 **PhD thesis** in University Denis Diderot (Paris 7), in LIAFA, under the supervision of Wiesław Zielonka. Title: "Positional Games".
- 1998–02 **Graduate studies at École Normale Supérieure de Cachan.** Master graduate in Computer Science, speciality "Algorithmics". Agrégation of Mathematics. Undergraduate studies in Mathematics.

Professional Experience

- 2007 **Tenured researcher in CNRS.** Laboratory LaBRI, Bordeaux, team "Méthodes Formelles" and "RHOBAN" project.
- 2006–07 **Research fellow in École Polytechnique, France.** Laboratory LIX, team "Complex Systems" of Daniel KroB.
Teaching assistant in École des Ponts et Chaussées. Game theory.
- 2005–06 **Research fellow in Warsaw University.** Team "Logic and Automata" of Damian Niwiński. Funded by the European Research Training Network "GAMES".
Teaching assistant in Warsaw University. Information Theory.
- 2002–05 **PhD student in University Denis Diderot (Paris 7)** in LIAFA, team "Automata and Applications".
Teaching assistant in University Paris 7. UNIX, JAVA, C, Mathematics.

Research

Most of my research activities concern game theory and its applications in computer science. I proved several results about the existence of pure and stationary optimal strategies. I also studied approximability of parity games by multi-discounted games and existence of Blackwell optimal strategies in these games. Beside their theoretical interests, these results have applications in controller synthesis.

In the beginning of my PhD, I also considered games played on transition graphs of pushdown automata, and designed algorithms for solving parity and exploration games on this kind of graphs. These results apply to Model-checking of programs with recursive calls.

Currently, I am interested in the decidability of problems related to probabilistic automata and games with partial observation.