



Brice, Bastien Boyer

Personal information

Date of birth December, 26 1983
Place of birth Saint Martin d'Hères, Isère – France
Nationality French
Marital status Single

Education and formation

2007–2008 **Master 2 in applied mathematics**, *University Joseph Fourier – Institut de Mathématiques Appliquées de Grenoble*, France.
first class honours

2004–2007 **Auditeur libre (“auditor”)**, *École Normale Supérieure de Lyon*, France.

jan.–aug. 2006 **Exchange student**, *Imperial College London*, England.

2001–2004 **Classe préparatoires aux Grandes Écoles (“preparatory class track for ‘Grandes écoles’)**, *Lycée Champollion*, Grenoble, France.
Admitted to ENSIMAG in 2003, admitted to l'ENST-Paris in 2004, admissible to ÉNS Lyon

2000–2001 **Bacalauréat Scientifique (Scientific high school diploma)**, *Lycée de La Mure*, France.
first class honours

Thesis

Oct 2008–present **Preparation of a thesis in Computer Science–Mathematics**, *University of Grenoble – Laboratoire Jean Kuntzmann*, France.
Defense expected by the end of Spring

Oct 2009–May 2010 **Visitor**, *University of Calgary – Information and Communication Technology*, Canada,
worked with Wayne Eberly.

Supervisor Jean-Guillaume Dumas

Description fast exact linear algebra, parallelism, software design and implementation

Experience

- Sept–Dec 2011 **Teaching**, *University Joseph Fourier*, Grenoble.
Algebra and Analysis (2nd year students) – Public Key Infrastructure (Master 2 students)
- 2010–2011 **Teaching**, *University Joseph Fourier*, Grenoble.
Algebra (1st year students)
- 2009–2010 **Teaching**, *University Joseph Fourier*, Grenoble.
Algebra (1st year students)
- 2008–2009 **Teaching**, *University Joseph Fourier*, Grenoble.
Algebra (2nd year students) – Analysis (1st year students) – Algebra and Cryptography (Master 1, course in English)
- Jan–Jun 2008 **Tutoring**, *University Joseph Fourier*, Grenoble.

Languages

- French **Native**
English **Very good**
Spanish/Italian **Basic**

Skills

- | | | | |
|-------------|-----------------------------------|------------|---|
| Programming | C/C++, autotools, OCaml, bash, Qt | Typography | T _E X, L ^A T _E X |
| OS | Linux | Scientific | Maple, Sage, Matlab |
| web design | XHTML, CSS | | |

Work

- Publications [1] *Memory efficient scheduling of Strassen-Winograd's matrix multiplication algorithm*, Brice Boyer, Jean-Guillaume Dumas, Clément Pernet et Wei Zhou. ISSAC '09.
[2] *Exact Sparse Matrix-Vector multiplication on GPU's and Multicore Architectures*, Brice Boyer, Jean-Guillaume Dumas et Pascal Giorgi. PASCO '10.
- Software (GPLv2+) *Galet*, an implementation of the galet algorithm in [1]
ffspmvgpu, a parallel implementation of routines of [2]
winosearch, a Qt application for interactive search of Strassen-like formulae
- Contributions to free software LinBox (C++ library for exact linear algebra, M4RI (C library for linear algebra over \mathbb{F}_2), Fflas-Ffpack (C++ library for fast linear algebra over $\mathbb{Z}/p\mathbb{Z}$) and Givaro (C++ library for fast arithmetic on finite fields and polynomials.)

Various interests

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| Sports | Alpinism, trekking, climbing, trail running. | Photography | Enthousiast. |
| Cuisine | | Reading | |