

BRUNO LÉVY

Born May, the 14th, 1972 (46 years old)

ALICE team, Inria, Villers-lès-Nancy

<http://www.loria.fr/~levy>



Google Scholar: <http://scholar.google.fr/citations?user=maUrcQsAAAAJ> h-index: 38 citations: 7690

Education

- 2000** Post-doc — Stanford — *Palo-Alto, USA*
- 1996-1999** Ph.D. — Loria and CRPG lab. — *Nancy, France*
- 1996-1999** Master degree — Loria and CRPG lab. — *Nancy, France*
- 1992-1995** School of Computer Science and Applications — *Nancy, France*
- 1990-1992** Intensive Mathematics (“classes préparatoires”) — *Nancy, France*

Professional Record

Current Position

Since 2018 Inria Senior Researcher (Research Director) — Director of Inria Nancy Grand-Est research center

Previous Positions

- Since 2008** Inria Senior Researcher (Research Director) — head of the ALICE team
- 2000-2008** Inria Junior Researcher (Research Associate) — head of the ALICE team (that I initiated in 2004)

Research Highlights

My initial topic is Geometry Processing. From 1998 to 2006, I focused on the problem of **mesh parameterization**, and produced several algorithms that became a de-facto scientific and industrial standard (LSCM, ABF++, PGP). Then I contributed to **two start-up creations**, for transferring my results in 3d gridding for oil exploration ([Paradigm/Earth Decision Sciences](#)), and visualization ([Scalable Graphics](#)).

From 2006 to 2016, I focused on some difficult numerical problems in Scientific Computing. I contributed to lay **spectral geometry processing** fundamentals and made it practical with the first algorithm that computes a Fourier-like basis for surface meshes (manifold harmonics). I also established the **regularity of Lloyd’s energy** and proposed a Newton solver for quantization, generalized it to propose the first automatic algorithm for **hex-dominant meshing** (L_p -CVT) and finally the first solver for **3D semi-discrete optimal transport**. Most of my research results are available in my [GEOGRAM](#) and [GRAPHITE](#) Open-Source softwares.

Publication Records

ACM Transactions on Graphics : 18 articles —Including two SIGGRAPHs as a **single author** (2001,2003)

EG, CGF J., ACM SGP, IEEE TVCG : 17 articles

According to Google Scholar (08/2016), 16 of my articles are cited more than 100 times. My article on Least Squares Conformal Maps (SIGGRAPH 2002) has **1000 citations**. It is **one of the 30 most cited SIGGRAPH papers ever**, according to *Metagraphics: Impact papers from SIGGRAPH/TOG, Nehab and Sander, SIGGRAPH ASIA 2013*

Supervision of Students

- 2002-2016** Supervised 17 Ph.D. theses — (15 defended, 2 on-going, 5 got academic positions after defense)
- 2004-2016** Supervised 2 habilitation theses (S. Lefebvre and D. Sokolov) — (both defended)
- 2005-2016** Supervised 13 post-docs — (4 of them got academic positions)

Teaching Activities

- since 2004** Numerical Geometry — U. Nancy, School of Geology, master degree
- since 2012** Algorithmic Gems — Nancy school of mines, master degree

2007-2014 Organization of courses given at the major conferences — (ACM SIGGRAPH: 5 courses)

Organization of Scientific Meetings

- 2015-2019** GMP 2016, WSOM 2017, SPM 2019 — conference co-chair —
2018 Computer Graphics Intl — program co-chair — *Bintan*
2014 [Eurographics](#) — program co-chair — *Strasbourg, France, > 400 participants*
(*Eurographics is the main European conference in Computer Graphics*)
2013 [Pacific Graphic](#) — program co-chair — *Singapore, more than 200 participants*
2013 [CAD Graphics](#) — conference co-chair — *Hong-Kong, more than 100 participants*
2010 [ACM/EG Symposium on Geometry Processing](#) — program co-chair — *Lyon/France, >100 part.*
2008 [ACM Symposium on Physical Modeling](#) — program co-chair — *Stony Brook/USA, >100 part.*
2007 [ACM Symposium on Physical Modeling](#) — program co-chair — *Tsinghua/China, >100 part.*

Institutional Responsibilities

- since 2004** Head of the ALICE research team — Inria, Nancy
2012-2016 Vice head of the Charles Hermite federation (4 research centers in CS and math.) — Nancy
2014 Member of the committee for outstanding junior researcher award — Inria national
2011-2013 Head of the “algorithms, computations and images” department (6 research teams) — Nancy
2010-2011 Member of the Executive Committee of the research center — Inria, Nancy
2010 Coordinator for the evaluation of the “Interaction and Visualization” theme — Inria national
2013, 2014 President of the hiring committee for junior researchers (research associates) — Inria, Nancy
2005-2010 Member of faculty hiring committees — Nancy, Grenoble, Strasbourg / France
2002-2016 Member of 57 Ph.D. and 14 habilitation committees — France, Germany, Hong-Kong, USA

Commissions of Trust

- since 2017** ACM Transactions on Graphics — Member of the Editorial board
2010-2014 IEEE Transactions on Visualization and Computer Graphics — Member of the Editorial board
since 2010 Graphical Models (Elsevier) — Member of the Editorial board
since 2014 Member of the Eurographics Ph.D. Thesis Award committee
2000-2016 Program Committee member of the major conferences on a regular basis
ACM SIGGRAPH (2008, 2012, 2013, 2015), Eurographics, ACM/EG SGP (every year since its inception)
2014-2016 Member of the Scientific Advisory Board of EDF (National Electricity Company) — Paris, France
2010 Evaluation board for the LIRIS lab. (Lyon) — AERES (French Agency of Scientific Evaluation)

Major Collaborations

- 2006-2016** W. Wang, Y. Liu, L. Lu (Hong-Kong U.) on optimal sampling and Voronoi diagrams
2013-2014 P. Poulin and G.-P. Paillé (U. Montréal, Canada) on volumetric splines
2004-2011 G. Turk (GeorgiaTech, USA) and J.-M. Dischler (U. Strasbourg, France) on texturing
2003-2011 H.-P. Seidel and R. Zayer (MPII, Germany), A. Sheffer (UBC, Canada), P. Alliez, D. Cohen-Steiner (Inria) and M. Desbrun (Caltech, USA) on mesh parameterization

Grants (selected)

- 2013** [VORPALINE](#) Proof-of-Concept Grant — Received from the European Research Council
2008 [GOODSHAPE](#) Starting Grant — Received from the European Research Council
2006 Microsoft Research Grant — Selected from a European-wide call for proposal

Awards

- 2000** Gilles Kahn award for the best Ph.D. thesis in Computer Science
Awarded by the French Computer Science Society (SIF)
2009 Regional Young Researcher Award
Awarded by the Regional Scientific Council of Lorraine
2011 **Inria Young Researcher Award**