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## Jérémie Dumas

<http://jdumas.org>

### Education

- 2017– **Postdoctoral Researcher** Courant Institute of Mathematical Sciences, New York, USA (*advisors: Daniele Panozzo and Denis Zorin*)
- 2013–2016 **PhD Thesis in Computer Science** Inria, Nancy, France  
(*advisor: Sylvain Lefebvre*)  
**Visiting Scholar** (April 2014, April 2016)  
Hong Kong University, Hong Kong
- 2010–2012 **Master d’Informatique** (*Master Degree in Computer Science*)  
École Normale Supérieure de Lyon, France, *mention Bien*  
**Exchange Student Program** (*Winter 2011*)  
DIRO, Université de Montréal, Canada
- 2009–2010 **Licence d’Informatique** (*B.Sc. in Computer Science*)  
École Normale Supérieure de Lyon, France, *mention Bien*
- 2007–2009 **Classe préparatoire aux grandes écoles in Science** (*Undergraduate studies for the competitive entrance exams to the French grandes écoles, national institutes of higher education*) Lycée Thiers, Marseille, France

### Internships

- 2013, mar–aug **Building Textured Surface Mesh Models Using Kinect**  
*under the direction of Janne HEIKKILÄ and Juho KANNALA*  
Center for Machine Vision, Oulu, Finland
- 2012, sep–feb **Sparse Reconstruction and Structure from Motion**  
*under the direction of Tomáš PAJDLA.*  
Center for Machine Perception, Prague, Czech Republic
- 2012, feb–jul **Path Graphs Decompositions and Representations**  
*under the direction of Christophe CRESPELLE.*  
Laboratoire d’Informatique et du Parallélisme, Lyon, France
- 2011, apr–jul **Solid Texture Generation and Wood Growth Simulation**  
*under the direction of Pierre POULIN.*  
Laboratoire d’Informatique Graphique de l’Université de Montréal, Québec
- 2010, jun–jul **Diffusion in Dynamic Networks**  
*under the direction of Christophe CRESPELLE and Éric FLEURY*  
Laboratoire d’Informatique de Paris 6, France

## Selected Publications

- 2017, *aug*      **Orthotropic k-nearest Foams for Additive Manufacturing.** *Jonàs Martínez, Haichuan Song, Jérémie Dumas, Sylvain Lefebvre* ACM Transactions on Graphics (TOG) — SIGGRAPH 2017 Conference Proceedings. Volume 36 Issue 4, July 2017.
- 2016, *aug*      **Procedural Voronoi Foams for Additive Manufacturing.** *Jonàs Martínez, Jérémie Dumas, Sylvain Lefebvre.* ACM Transactions on Graphics (TOG) — SIGGRAPH 2016 Conference Proceedings. Volume 35 Issue 4, July 2016.
- 2015, *nov*      **Structure and Appearance Optimization for Controllable Shape Design.** *Jonàs Martínez, Jérémie Dumas, Sylvain Lefebvre, Li-Yi Wei* ACM Transactions on Graphics (TOG) — SIGGRAPH Asia 2015 Conference Proceedings. Volume 34 Issue 6, November 2015.
- 2015, *aug*      **By-Example Synthesis of Structurally Sound Patterns.** *Jérémie Dumas, An Lu, Sylvain Lefebvre, Jun Wu, Christian Dick.* ACM Transactions on Graphics (TOG) — SIGGRAPH 2015 Conference Proceedings. Volume 34 Issue 4, July 2015.
- 2014, *aug*      **Bridging the Gap: Automated Steady Scaffoldings for 3D Printing.** *Jérémie Dumas, Jean Hergel and Sylvain Lefebvre.* ACM Transactions on Graphics (TOG) — SIGGRAPH 2014 Conference Proceedings. Volume 33 Issue 4, July 2014.

## Teaching

- 2013–2016      **Tutorials in Java** *Introduction to Computer Science (B.Sc. course)*  
ENSEM, Nancy, France
- 2014–2016      **Tutorials in 3D Printing** *Algorithmic aspects of toolpath generation for filament printers (M.Sc. course)* ENSEM, Nancy, France

## Research Interests

Geometric Modeling, Shape Optimization, Digital Fabrication, Discrete Algorithms, Numerical Optimization, Texture Synthesis, Graph Theory, Artificial Intelligence, Computer Vision. . .

## Programming Skills

- Langages*      Bash, C, C++, Java, OCaml, Lua, Python, Ruby
- Softwares*      Maple, Mathematica, Matlab
- Other tools*    Awk, L<sup>A</sup>T<sub>E</sub>X, ns-2, Gnuplot
- Librairies*      Qt, MPI, Tikz, OpenGL, OpenCL, OpenCV, Theano, CGAL

## Teamed Programming Contests

- 2016, *feb*      **Google Hash Code Online Qualifications (101 / 1054)**
- 2011, *nov*      **ACM ICPC, Southwestern Europe Regional Contest (Madrid)**  
*Gold Medal (2nd place)*

## Personal Interests

- *Dance*: Lindy Hop, West Coast Swing, Ballroom Dances, Balfolk ...
- *Art*: Photography, Music, Anime, Literature, Science-Fiction
- *Outdoor*: Medieval Reenactment, Hiking, Swimming, Archery, Ice Skating

## Langage

- *French*: Native
- *English*: Advanced
- *Italian, Japanese, Czech, Finnish, French Sign Language*: Basic knowledge