

Étienne Corman

Postdoc at Carnegie Mellon University

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Education

- 09/13 – 12/16 **Ph.D. in Applied Mathematics**, *École Polytechnique*, Paris Saclay.
Advisors: *Maks Ovsjanikov* and *Antonin Chambolle*
Laboratoire d'informatique de l'École polytechnique (LIX)
Title: Functional representation of deformable surfaces for geometry processing
- 2012 – 2013 **Master in Mathematics**, *Université Paul-Sabatier*, Toulouse.
Fundamental and Applied Mathematics
Topics: Functional Analysis (Hilbert and Sobolev Spaces, Spectral Theory), Partial Derivative Equations for Fluid Mechanics
- 2008 – 2013 **Engineering Degree**, *Institut National des Sciences Appliquées*, Toulouse.
Applied Mathematics and Modelization
Topics: Optimization, Numerical analysis for Partial Derivate Equations, Signal Processing, C++ Programming

Research Experience

- 01/17 – Present **Postdoctoral Researcher**, *Carnegie Mellon University*, Pittsburgh.
Advisors: *Keenan Crane*:
Discrete differential geometry for mesh processing.
- 09/13 – 12/16 **Graduate Research Assistant**, *École Polytechnique*, LIX.
Geometry Processing: Developed algorithms for geometry processing and graphics using techniques from continuous differential geometry and optimization.
- 02/13 – 06/13 **Research Assistant**, *École Polytechnique*, CMAP.
Advisor: *Antonin Chambolle*
Convex Optimisation: Study of convergence rates and acceleration methods for first order primal-dual algorithms
- 07/12 – 09/12 **Research Assistant**, *Hong Kong Baptist University*, Hong Kong.
Advisor: *Xiaoming Yuan*
○ **Image Processing:** Color image denoising using correlation between channels
○ **Convex Optimisation:** Study of convergence rates of proximal point type algorithms

Teaching Experience

- 09/13 – 11/16 **Teaching Assistant**, *Polytech Paris-Sud*, Paris Saclay.
General Mathematics Course: Fourier Series, Differential Equations, Probabilities, Statistics.

Publications

- 2017 **Consistent Functional Cross Field Design for Mesh Quadrangulation.**
O. Azencot, E. C., M. Ben-Chen and M. Ovsjanikov. Proc. SIGGRAPH
- 2016 **Functional Characterization of Intrinsic and Extrinsic Geometry.**
E. C., S. Solomon, M. Ben-Chen, L. Guibas and M. Ovsjanikov. ACM Transaction On Graphics.
- 2015 **Continuous Matching via Vector Field Flow.**
E. C., M. Ovsjanikov and A. Chambolle. Proceedings of the Eurographics Symposium on Geometry Processing, 2015.

- 2014 **Supervised Descriptor Learning for Non-Rigid Shape Matching.**
E. C., M. Ovsjanikov and A. Chambolle. ECCV 2014 Workshops, Part IV, 2014.
- 2014 **A Generalized Proximal Point Algorithm and its Convergence Rate.**
E. C., X. Yuan. SIAM Journal on Optimization. 2014.

Participation to Conferences and Workshops

- 12/2016 **Siggraph Asia**, Macau.
Tutorial on functional map processing and computation
Website : http://www.lix.polytechnique.fr/~maks/fmaps_course/index.html
- 02/2016 **Center for Graphics and Geometry Computing Seminar**, *Technion*, Israel.
- 11/2015 **Journées de Géométrie Algorithmiques**, *Cargèse*, France.
- 06/2015 **Symposium of Geometry Processing**, *Graz*, Austria.
- 05/2015 **Leo Guibas Laboratory Seminar**, *Stanford University*, USA.
- 09/2014 **Non-Rigid Shape Analysis and Deformable Image Alignment**, *Zurich*, Swiss.

Skills

Programming MatLab, LaTeX, Pascal, C/C++, Fortran, OpenMP, MPI

French Native

English Fluent

Ph.D. working language

Interests

Sports Bouldering, Skiing, Hiking

References

Maks Ovsjanikov

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École polytechnique

Palaiseau, France

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Miri Ben-Chen

Computer Science Department

Israel Institute of Technology

Haifa, Israel

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Keenan Crane

Carnegie Mellon Graphics Lab

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