Flavien Léger

Curriculum Vitæ

Employment

2017–Present **Assistant Adjunct Professor**, *UCLA, Department of Mathematics*, Los Angeles, CA, USA.

Education

2012–2017 **Ph.D. in Mathematics**, *Courant Institute, New York University*, New York, USA.

2010–2012 **M.S. in Mathematics**, *Paris 6*, Paris, France.

2010 **B.S. in Mathematics**, *ENS Cachan*, France.

Research Interests

Optimal tranport, PDEs, fluid mechanics.

Awards

2016–2017 Dean's Dissertation Fellowship, NYU GSAS

2012–2016 Henry MacCracken Fellowship, NYU GSAS

2007 Mention at the *Concours Général des Lycées de Mathématiques*, a mathematical Olympiad

Publications

1. Matt Jacobs and Flavien Léger. A fast approach to optimal transport: The back-and-forth method. *arXiv preprint arXiv:1905.12154*, 2019.

2. Flavien Léger and Wuchen Li. Hopf–Cole transformation via generalized Schrödinger bridge problem. *arXiv preprint arXiv:1901.09051*, 2019.

3. Matt Jacobs, Flavien Léger, Wuchen Li, and Stanley Osher. Solving large-scale optimization problems with a convergence rate independent of grid size. April 2018.

4. Flavien Léger. A geometric perspective on regularized optimal transport. *ArXiv e-prints*, March 2017.

5. Flavien Léger. A new approach to bounds on mixing. *Math. Models Methods Appl. Sci.*, 28(5):829–849, 2018.

6. Andrea L. Bertozzi, Thomas Laurent, and Flavien Léger. Aggregation and spreading via the Newtonian potential: the dynamics of patch solutions. *Math. Models Methods Appl. Sci.*, 22(suppl. 1):1140005, 39, 2012.

7. Flavien Léger, Guoshen Yu, and Guillermo Sapiro. Efficient matrix completion with Gaussian models. In *Acoustics, Speech and Signal Processing (ICASSP), 2011 IEEE International Conference on*, pages 1113–1116. IEEE, 2011.

Presentations

- Geometric Science of Information, Toulouse, August 2019
- SOCAMS, Caltech, April 2019
- Optimal transport seminar, Caltech, March 2019
- Level Set Seminar, UCLA, Oct. 2017
- CSCAMM Seminar, University of Maryland, Feb. 2017 (invited)
- Analysis Seminar, University of Wisconsin–Madison, Sept. 2016 (invited)
- Optimal Transport working group, Courant Institute, Feb. & May 2016
- Poster session, ICASSP, 2011
- Internships presentations, ENS Cachan, Sept. 2010

Computer skills

Advanced	Matlab, Python (SciPy)
Intermediate	Julia, C++, Linux

Teaching experience

Spring 2019	Differential equations
Winter 2019	Optimization
Fall 2019	Optimization
Spring 2018	Mathematical Modeling
Winter 2018	Methods of Applied Mathematics
Fall 2015	Recitation Leader, Calculus I
Fall 2014	Recitation Leader, Calculus I

Extended professional travel

Summer 2014	UCLA, Los Angeles, CA
Spring 2011	UCLA, Los Angeles, CA
Summer 2010	University of Minnesota, Minneapolis, MN

Languages

French (Mothertongue), English (Fluent), Italian (Intermediate), German (Basic).