# CURRICULUM VITAE

September 2016

# David LACOSTE

born on december 22nd 1971 in Montpellier (France), CNRS researcher in the Laboratoire de Physico-Chimie Théorique, E.S.P.C.I., 10 rue Vauquelin, 75005 Paris, France. Mail: david.lacoste@gmail.com, Tel: 33-1-40-79-51-40,

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#### **EDUCATION**

2009	Habilitation of University P. et M. Curie (Paris 6)
1996	Ph.D. in Theoretical Physics, Université Joseph Fourier, Grenoble
1994	Master in Quantum Physics from Ecole Normale Supérieure, Paris
1992	Undergraduate at Ecole Normale Supérieure, Paris

#### **EMPLOYMENT**

Jun 2016 – present	CNRS, Directeur de Recherches (DR2 level)
$Jun\ 2005 - Jun\ 2016$	CNRS, Chargé de Recherches (CR1 level)
$Jan\ 2002 - Jun\ 2005$	CNRS, Chargé de Recherches (CR2 level)
$Jan\ 2000 - Jan\ 2002$	University of Pennsylvania, Philadelphia, Postdoctoral Fellow
	Advisor: T. Lubensky. My research focused on theoretical soft matter.

## **HONOR**

Sept 2011 – 2015 Distinction "Prime d'excellence scientifique" from CNRS

# RESEARCH

My research activities focuses on the applications of non-equilibrium statistical physics to biological systems. I am also involved in the development of Stochastic Thermodynamics, and in the general modeling of fluctuations in non-equilibrium systems. More recent directions of research also include modeling complex chemical networks of information-carrying polymers. I am author of 58 peer-reviewed publications, which are available on http://www.pct.espci.fr/~david/ (Citations: 1210, h-index: 21).

### **TEACHING**

Lectures at Master level on Statistical Physics applied to biological systems.
Tutoring on Chemical Thermodynamics and Biophysics at ESPCI,
Numerical methods at University UPMC, Paris.
TD on "Stochastic processes" at UPMC.
Four lectures on "Out of equilibrium soft matter", St. Bees, England.
TD for Master "Physique des Liquides" at UPMC.
Tutoring on Statistical Physics and phase transitions at ESCPI.
Allocataire moniteur at Université Joseph Fourier.

# SUPERVISION OF STUDENTS

#### **Doctoral supervision**

2016 - 2019	Master internship and PhD of A. Blokhuis
2015 - 2016	Master internship of J. Guioth and H. Vroylandt
2013 - 2014	Master internship of Yang Wang
2012 - 2013	Master internships of V. Miralles, M. Sokseiha and T. Blondel
2009 - 2012	Supervision of the PhD of Gatien Verley
2007	Master internship of J. Deseigne
Postdoctoral supervision	
2015 - 2017	Supervision of S. Lahiri and R. Garcia-Garcia (at 100%).
2011 - 2013	Supervision of A. Kundu (at 100%) and co-supervision of F. Quemeneur (30%).
2009 - 2011	Co-supervision of K. Tsekouras and L. Dinis with JF. Joanny.
2009 - 2010	Supervision of F. Ziebert (at 100%).
2005 - 2009	Co-supervision of R. Padinhateeri and M. Lagomarsino with J. F. Joanny.

#### **GRANTS**

- Bi-national French-Indian program (CEFIPRA) 3504-2, Mechanics of living matter 2006-2009;
- Grant ANR Blanche: ARTIF NEURON, Action potential in a lipid nanotube: minimal system of neuronal signalisation 2008-2011;
- Grant ANR: ACTIMAG, Force generated by actin polymerization. Biochemical and mechanical aspects 2009-2012.
- Grant from region Ile de France: DIM, Entropic principles in metabolism 2015-2017.
- Grant from Labex CellPhys: Fluctuations and metabolism 2016-2017.
- Grant ANR: Interplay between conformation dynamics of an ABC transporter and its membrane environment, 2016-2019.

## ACTIVITIES OF GENERAL INTEREST

- Referee for Physical Review Letters, Physical Review E, Europhysics Letters, ...
- Organization of conferences:
   Jan 2012 Workshop on "Fluctuation theorems, where do we go from here?" at ESPCI".
   A 2 days workshop to take place in June 2017 in Orsay on Stochastic Thermodynamics.
   one 1 week international conference on Evolution and diversity to take place in Les Houches in 2018.
- Thesis committees december 2016 in Lyon, november 2015 in Grenoble (France), november 2014 at IPC (Varsovie), september 2013 at ICS (Strasbourg), january 2012 at university of Odensee (Danemark), mai 2011 at Université Libre in Brussells, june 2008 at Institut Curie (Paris).