Matteo Smerlak

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Born 7. Dec 1984, French Citizen

Married, 2 children

Current Positions

Max Planck Institute for Mathematics in the Sciences, Germany
Sofja Kovalevskaja Research Group Leader — 2017 - pres.

Waterloo Center for Innovation and Complexity, Canada
External Member — 2017 - pres.

Education

Université d'Aix-Marseille, France
Ph.D. in Theoretical Physics (highest honours) — 2008 - 2011
Thesis: Divergences in Spinfoam Quantum Gravity (pdf)
Advisors: Carlo Rovelli and Vincent Rivasseau

Ecole normale supérieure, France — 2006 - 2007
Master 2 Theoretical Physics (highest honours)

Ecole normale supérieure de Lyon, France
Master 1 Physics (highest honours) — 2005 - 2006
Licence Physics (highest honours) — 2004 - 2005

Lycée Henri IV, France
"Classe préparatoire aux Grandes Ecoles" — 2002 - 2004

Previous Employment

Perimeter Institute for Theoretical Physics, Canada
Senior Postdoctoral Researcher — 2016 - 2017
Postdoctoral Researcher — 2013 - 2016

Max Planck Institute for Gravitational Physics, Germany
Junior Scientist — 2011 - 2013

Grants & Fellowships

Human Science Frontiers Program, France
Young Investigator Award ($1,350,000 shared over four teams) — 2019 - 2022

Alexander von Humboldt Foundation, Germany
Sofja Kovalevskaja Award (€1,649,000) — 2017 - 2022
German Research Chair at AIMS Cameroon (€560,000, declined) — 2017

Riemann Center for Geometry and Physics, Germany
Riemann fellowship — 2012

Ecole normale supérieure de Lyon, France
"Elève normalien" fellowship (nationwide competitive exam) 2004 - 2008

Ecole polytechnique, France
"Ingénieur polytechnicien" fellowship (nationwide competitive exam, declined) 2004

Fellowships

Santa Fe Institute, USA
Complex Systems Summer School 2013

Riemann Center for Geometry and Physics, Germany
Riemann fellowship 2012

Ecole normale supérieure de Lyon, France
"Elève normalien" fellowship (nationwide competitive exam) 2004 - 2008

Ecole polytechnique, France
"Ingénieur polytechnicien" fellowship (nationwide competitive exam, declined) 2004

Teaching

Max Planck Institute for Mathematics in the Sciences, Germany
Lecturer: Evolutionary dynamics 2020

African Institute for Mathematics in the Sciences (Cameroon, Ghana)
Lecturer: Electromagnetism & relativity; Complex systems 2015 - 2017

Université d'Aix-Marseille, France
Teaching assistant: Mathematical methods for physicists; Wave optics 2009 - 2011

African Institute for Mathematics in the Sciences (South Africa)
Teaching assistant (full time) 2007 - 2008

Lycée Henri IV, France
Teaching assistant in France's first affirmative action post-secondary class 2006 - 2007

Supervision

Max Planck Institute for Mathematics in the Sciences, Germany
Cyrille Merleau Nono Saha (PhD) 2018 - pres.
Camila Bräutigam (master) 2018 - pres.

Perimeter Institute for Theoretical Physics, Canada
Samuel Leutheusser (undergrad) 2016
Tommaso de Lorenzo (undergrad) 2014

Organization

Perimeter Institute for Theoretical Physics, Canada
Conference organizer: *Open Research: Rethinking Scientific Collaboration* 2017
Postdoc representative 2014 - 2015

Ecole normale supérieure de Lyon, France
Seminar coordinator 2005 - 2006

Publications

Peer-reviewed publications:

~40 published articles, ~1000 citations: see my Google Scholar profile for a complete list

Popular science book:

Les trous noirs, "Que Sais-Je?", Presses Universitaires de France, 2016

Translation of population science book:

Anaximandre de Milet ou la naissance de la science, Carlo Rovelli, Dunod, 2015

Chapters in popularization/philosophy books:

Gilbert Simondon ou l'invention du futur, Bontems ed., Klincksieck, 2016

Le monde quantique, surprises quantiques, d'Espagnat, Zwirn eds., Editions Matériologiques, 2014

Le plus grand des hasards, Surprises quantiques Dars, Papillault eds., Belin, 2010

Magazine articles:

Comment les trous noirs ont pris corps, La Recherche 489, 2014

Le monde quantique, une question de perspective, La Recherche 418, 2008

Talks

Invited plenary talks in international conferences (selection):

The (non-Gaussian) structure of fitness distributions,
MPG Symposium, Max Planck Society, Berlin
Loops '15, Friedrich-Alexander University, Erlangen
Statistical Physics Methods in Social and Economic Systems, IHP, Paris
International Workshop on Relativistic Quantum Information, IFF, Madrid

Invited external seminars (selection):

Meat on the bones of Universal Darwinism (with help from R. Fisher), GeorgiaTech, 2018

How do ecosystems grow? A surprising pattern, ISB, Seattle, 2016