# Stefano SPIGLER

Resume

BIRTHPLACE BIRTHDATE PHONE NUMBER (WORK) EMAIL WEBSITE CONTACT ADDRESS

Padova, ITALY March 16, 1990 +41 (0) 216 930 469 stefano@spigler.net spigler.net/stefano EPFL SB IPHYS PCSL Cubotron, Rte de la Sorge CH-1015 Lausanne, Switzerland



Work	EXPERIENCE
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Work experience	
2017–2019	<b>Postdoc</b> at EPFL, Lausanne and CEA, Paris. Research topic: Learning dynamics and energy landscape in deep neural networs.
2017–2018	<b>Teaching</b> "Travaux Pratiques IV" at EPFL. Course topic: Statistical physics of learning.
2014-2017	<b>Ph.D.</b> at LPTMS, Université Paris Sud and Ecole Normale Supérieure, Paris.  Research contract by the École Normale Supérieure.  Research topic: Avalanches in glassy systems.
2016	<b>Teaching assistant</b> for an introductory course on <i>machine learning</i> at the Université Pierre et Marie Curie, Paris.
2015-2017	<b>Supervision of students</b> in ORT Strasbourg and Tel Aviv University, directing research projects on <i>cold atoms</i> and <i>sympathetic cooling</i> .

Internship at the Laboratoire de Physique Théorique et Modèle Statistique at the Université Paris Sud. Paris.

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EDUCATION	
2018	Attendance to the <b>Beg Rohu school 2018</b> , subject: Deep Learning and Statistical Physics.
2017	Attendance to the <b>Boulder school 2017</b> , subject: Frustrated and Disordered Systems.
2017	Attendance to the course <b>Intelligence économique &amp; stratégique</b> , organized by <i>MINES ParisTech</i> .
2016	Attendance to the <b>Beg Rohu school 2016</b> , subject: Concepts and Methods of Statistical Physics.
2012–2014	M.Sc. in Physics of Complex Systems. Joint programme involving: Politecnico di Torino, SISSA, ICTP; Université Pierre et Marie Curie, Université Paris Diderot, Université Paris Sud, ENS de Cachan.

Italian Laurea (B.Sc.) in Physics, Università degli Studi di Padova, Padua. Scuola Galileiana di Studi Superiori of Padova, Padua.

This college is affiliated with the University of Padova; students are required to pass all the exams each year with grade above 24/30 and average GPA above 27/30; attendance to extra courses is also required.

Ranked 1st among the whole class.

## Published articles

2018 M. Baity-Jesi, L. Sagun, M. Geiger, S. Spigler, G.B. Arous, C. Cammarota, Y. LeCun, M. Wyart, G. Biroli,

Comparing dynamics: deep neural networks versus glassy systems, ICML, PMLR 80:314-323.

2017 S. Franz, S. Spigler, Mean-field avalanches in jammed spheres, Physical Review E 95(2), 022139.

S. Franz, G. Gradenigo, S. Spigler, Random-diluted triangular plaquette model:

Study of phase transitions in a kinetically constrained model,

**Physical Review E** 93(3), 032601.

#### Talks and presentations

2017 Short talk + poster on the Distribution of avalanches in disordered systems,

**CECAM** meeting on Advancements in the physics of disordered systems, Lausanne.

2016 Short talk on Equilibrium shocks in soft spheres, Chicago.

## Honors and awards

Ranked 1st among the whole class in my M.Sc. in Physics of Complex Systems.

2013 Scholarship awarded by the Université Paris Sud.

2009–2012 Full merit scholarship awarded by Scuola Galileiana di Studi Superiori.

Ranked 4th among over 600 candidates

2009 National award for achieving the highest grade at the final examination in high school.

2009 National award for the results obtained in the national mathematical olympiad.

#### SKILLS

LANGUAGES Italian (native language), English (full command), French (fluent).

INFORMATICS Good knowledge of **operating systems** (*Ubuntu, Red Hat; Windows*);

full command of LaTeX and Office suite;

good knowledge of **several programming languages**: C/C++, XML/HTML, CSS, PHP, SQL/databases, Python (Pytorch),

Mathematica (basics), JavaScript (basics), Bash (basics), AWK (basics).