

## SAMIR SUWEIS BRIEF CURRICULUM VITAE

### PERSONAL INFORMATION

Family Name: Suweis; First Name: Samir; Second Name: Simon

Researcher unique identifier ORCID: 0000-0002-1603-8375; SCOPUS ID: 36087945400

Nationality: Italian. Date of birth: 21.02.1984.

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### EDUCATION

**2008-2011.** Ph.D. in Science, Department of Civil and Environmental Engineering, Ecole Polytechnique Fédérale Lausanne (EPFL) – Lausanne (Switzerland). Supervisor: *Andrea Rinaldo*

**2003-2008.** Bachelor and Master in Physics, Physics Department, University of Padua, Padua, Italy.

### CURRENT POSITION(S)

from **04/2016.** *Research Scientist (RTDa)*, Physics and Astronomy Department, Padova University, Italy.

### PREVIOUS POSITIONS

**2013-2016.** *Post-Doc Researcher*, Physics and Astronomy Department, Padova University, Italy.

**2011-2013.** *Post-Doc Researcher* at the LIPh Lab (Laboratory of Interdisciplinary Physics) - Physics and Astronomy Department, Padova University.

### FELLOWSHIPS

**2013-2015** Young Scholar Grant, Physics & Astronomy Department, University of Padova, Italy (18000 E).

**05/2010- 01/2011.** *Visiting research student*, Civil and Environmental Engineering Department, Princeton University, NJ (USA).

### SUPERVISION OF BACHELOR, MASTER AND GRADUATE STUDENTS

I have co-supervised (research design and mentoring) 5 Graduate, 7 Master and 4 Bachelor students.

### TEACHING ACTIVITIES

I regularly teach from 2015 around 80-100 hrs per year. This year I teach a course on Quantum Mechanics at the Mathematics Departments and part of a course on Statistical Mechanics of Complex System at the Engineering Department. Since 2012 I teach in a Master of “Scientific Communication” organized yearly by the University of Padova. I’m actively involved in scientific dissemination and public engagement (with Schools, citizenships...).

I’m member of the Ph.D. Neuroscience panel @University of Padova.

### ORGANISATION OF SCIENTIFIC MEETINGS

**25/09/2018.** International Satellite Workshop @CCS2018 “Robustness, Adaptability and Critical Transitions in Living Systems #2”. Thessaloniki, Greece

**12/06/2018.** International Satellite Workshop @NetSci2018: “*Ecological networks: spandrels, selection, and assembly*”. Paris, France

**05-07/04/2018.** International Workshop: “Stochastic Modeling in Ecology and Evolutionary Biology”, Venice, Italy.

**20/09/2016** International Conference Satellite: “Robustness, Adaptability and Critical Transitions in Living Systems #2”, within the International Conference of Complex System 2016 (CCS16). I have been the leading organizer of this conference satellite.

**27-29/06/2016** XXI Italian National Conference of Statistical Physics and Complex Systems (member of the organizing committee).

**16-19/09/2015** International Workshop: “Living systems, from interaction patterns to critical behaviour”, Venezia, (Italy).

**24/09/2014** International Conference Satellite: “Robustness, Adaptability and Critical Transitions in Living Systems”, within the European Conference of Complex System 2014 (ECCS14).

**ACADEMIC ACTIVITIES.** *Member of the Steering Committee* of the Complex System Society (2017-2020).

**MAJOR COLLABORATIONS**

	collaborators
Statistical Physics and Complex Systems Modeling	Maritan (IT), Shnerb, N. (IS); J. Grilli,, J.R. Banavar (USA), F. Simini S. Azaele (UK); Munoz (ES)
Geoscience	Corbetta, S. Vassanelli (Italy)
Hydrology, Virtual Water Networks Food Security	Manfredi, E. Bertuzzo (Switzerland), I. Rodriguez-Iturbe, M. Rodriguez-Orico, J. Carr and K. Davis (USA);
Ecology	Wiegand (USA) C. DeVargas (France), Iudicone (Italy)

**PUBLICATION AND CITATION STATISTICS**

I have 40 publications in refereed journals, including **1 in Nature, 2 in Nature Communications, 1 Science Advance, 4 in PNAS and 1 Review of Modern Physics**. Our research has been also mentioned in American Scientist, Nature News & Views PNAS Commentary, European Commission DG Environment and Unesco Global Water Forum.

	Journal	Year	Index
Publications			
Citations			
Index			

**INVITED PRESENTATIONS AT INTERNATIONAL SCHOOLS, WORKSHOPS & CONFERENCES**

I have disseminated my work internationally through **13 invited talks and more that 14 contributed presentations**. During 2017-2018 I have been invited @

Workshop Satellite “Information Processing in Complex Systems” @CCS 2018, 25/09/2018.

Advanced Workshop on Nonequilibrium Systems in Physics, Geosciences and Life Sciences”, @ICTP, Trieste, Italy 22/05/2018.

International Summer School on Complex Network, Salina, Sicilia, 07/09/2017

XXII Convegno Nazionale di Fisica Statistica e dei Sistemi Complessi. Giugno 29, 2017. Parma Italy

**RESEARCH GRANTS – THIRD-PARTY FUNDING**

STARS 2018 Starting Grant (2018 - ~ 140.000 Euros) “Biodiversity, Robustness, Adaptability and Critical Transitions in living interacting systems”

Strategic Investment Departmental Project “Quantitative Characterization of Biodiversity in Macrobiomes: a Statistical Physics Approach” (2017 - ~ 40.000 Euros). I’m the PI of the project.

Senior Research Grant (2013 - ~ 55.000 Euros) “Statistical Physics of Ecological Networks: from Patterns to Principles” funded by the University of Padova within the Young Scholars Project - aimed at support innovative and excellent research proposed by young scientists. I was the PI.

**SCIENCE COMMUNICATION – ONLY LAST YEAR**

**23/04/2018.** Finalist at the national competition for communication in science of young scholars: “Giovedì Scienza”, Torino, Italy.

**25/10/2017 e 13/04/2018,** “I Robot”, seminar on Big Data and Artificial Intelligent to students and teachers of high schools in Milan organized by DIESSE Lombardia (Milan, Italy).