

Giorgio NICOLETTI



PERSONAL DATA

PLACE AND DATE OF BIRTH: Dolo, Italy | 9th July 1995
ADDRESS: Department of Physics and Astronomy "Galileo Galilei"
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EDUCATION

OCT 2019 - PRESENT



PhD in PHYSICS at the Laboratory of Interdisciplinary Physics, **University of Padova**, Padova
Supervisor: Prof. AMOS MARITAN
Co-supervisor: Prof. SAMIR SUWEIS

OCT 2017 - JULY 2019



Master's Degree in PHYSICS, **University of Padova**, Padova
Thesis: *Scaling and renormalization group for models of neural activity.*
Advisor: Prof. AMOS MARITAN
Co-Advisor: Prof. SAMIR SUWEIS
FINAL GRADE: 110/110 *cum laude*
GPA: 29.93/30

SEPT 2018 - FEB 2019



Erasmus semester at the INTERNATIONAL MASTER IN PHYSICS OF COMPLEX SYSTEM, **Sorbonne University**, **Paris Diderot University**, **Paris-Sud University**, Paris
ECTS GPA: A/A

OCT 2014 - JULY 2017



Bachelor's Degree in PHYSICS, **University of Padova**, Padova
Thesis: *Quantum Mechanics and de Finetti theorem. A Bayesian interpretation of quantum probability.*
Advisor: Prof. PIERALBERTO MARCHETTI
FINAL GRADE: 110/110 *cum laude*
GPA: 29.19/30

SEPT 2009 - JULY 2014

High school diploma, **Liceo Scientifico "U. Morin"**, Venice
Final essay: *The emergent universe. Beyond mechanism: does something fundamental exist?*
FINAL GRADE: 100/100 *cum laude*

PUBLICATIONS

Phys. Rev. Research 2, 023144 (2020) | Giorgio Nicoletti, Samir Suweis, Amos Maritan. *Scaling and criticality in a phenomenological renormalization group.*

CONFERENCES, SCHOOLS AND WORKSHOPS

- 30TH NOV - 18TH DEC 2020
SCHOOL **Winter School on Quantitative Systems Biology: Quantitative Approaches in Ecosystem Ecology**, International Center for Theoretical Physics, Trieste, Italy.
- 18TH - 19TH NOV 2020
WORKSHOP **Physics of Brains**, organized by PoLNET and sponsored by the York Biomedical Research Institute and the Institute of Physics.
- 6TH - 9TH OCT 2020
CONFERENCE **Brain Criticality Virtual Meeting**, sponsored by the Brain Initiative and the Marie Skłodowska-Curie Actions.
CONTRIBUTED POSTER: *What can a phenomenological Renormalization Group teach us about criticality in a network of neurons?*
- 29TH SEPT - 1ST OCT 2020
CONFERENCE **Bernstein Conference 2020**, organized by the Bernstein Network Computational Neuroscience.
CONTRIBUTED POSTER: *Scaling and criticality in a phenomenological renormalization group.*
CONTRIBUTED POSTER (CO-AUTHOR): *Brain criticality beyond resting state neuronal avalanches.*
- 24TH SEPT 2020
WORKSHOP **Virtual Workshop on the Role of Quantitative Theory in Biological Physics**, Emory College, Atlanta, Georgia, United States.
- 18TH - 23RD JULY 2020
CONFERENCE **29th Annual Computational Neuroscience Meeting**, organized by the Organization for Computational Neuroscience.
- 29TH JUNE - 3RD JULY 2020
WORKSHOP **Youth in High Dimensions: Machine Learning, High Dimensional Statistics and Inference for the New Generation**, International Center for Theoretical Physics, Trieste, Italy.
- 4TH JUNE 2020
WORKSHOP **Learning Physics with Machine Learning Virtual Workshop**, Emory College, Atlanta, Georgia, United States.
- 30TH APR 2020
WORKSHOP **Physics of Behavior Virtual Workshop**, Emory College, Atlanta, Georgia, United States.
- 16TH - 18TH JAN 2020
WORKSHOP **LiphLab Winter Workshop 2020**, Folgaria, Italy.
MAIN PRESENTATION: *Testing the critical brain hypothesis using a phenomenological renormalization group.*
- 9TH - 16TH SEPT 2019
SCHOOL **Computational and Theoretical Models in Neuroscience Summer School**, Venice, Italy.
WORKING GROUP PROJECT: "Spiking models of metastable activity: theory and applications" with prof. Luca Mazzucato, University of Oregon.
- 1ST - 3RD JULY 2019
CONFERENCE **First Italian Conference on Complex Systems**, Bruno Kessler Foundation, Trento.
CONTRIBUTED POSTER: *Scaling and Renormalization Group for the activity of neurons.*

TEACHING AND RELATED ACTIVITIES

- 2020/2021, 1ST SEMESTER
TEACHING **IT and Bioinformatics**, Bachelor's Degree in Biology, University of Padova.
21 hours contract, teaching assistant for the Python programming language.
- 21ST - 30TH OCT 2020
WORKSHOP **Innovative University Teaching and Learning Physics**, University of Padova.

AWARDS AND RELEVANT ACTIVITIES

- 2020 Graduate Alumni Award for the best students who graduated in the academic year 2018/2019, **University of Padova**.
- 15TH JULY 2019 First student to graduate in the Master of Science in Physics, **University of Padova**.
- FEB 2017 Winner of the grant for the best students of scientific first cycle degrees, granted by **University of Padova**.
- 10TH OCT 2014 Winner of the award for the high school students with the highest final grade and honors, granted by **MIUR**, the Italian Ministry for Education, University and Research.
- 26TH - 31ST JULY 2013 Winner of a nationwide selection among the best high school students in Italy held by **Scuola Normale Superiore di Pisa** to attend a summer program in Rome, organized by SNS and hosted by *Accademia Nazionale dei Lincei*.
- 26TH - 30TH JUNE 2012 Selected among the winners of a national student contest for the **INAF** summer program for high school students *An astronomical exercise on star counts and interstellar extinction* at the Loiano Astronomical Observatory, Bologna.

LANGUAGES

- ITALIAN: Native.
- ENGLISH: Fluent, C1 level per the Cambridge English assessment.
- FRENCH: Intermediate knowledge, B1-B2 level per the Erasmus OLS language assessment.

IT SKILLS

- Advanced Knowledge: Python
- Good Knowledge: Mathematica, \LaTeX
- Basic Knowledge: C++, ROOT, Matlab, LINUX