

# Giorgio NICOLETTI



## PERSONAL DATA

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PLACE AND DATE OF BIRTH: Dolo, Italy | 9<sup>th</sup> July 1995  
ADDRESS: Department of Physics and Astronomy "Galileo Galilei"  
Room 382, Via Francesco Marzolo 8, 35131 Padua, Italy  
PHONE: +39 333 6751887  
PERSONAL WEBSITE: [giorgionicoletti.github.io](https://giorgionicoletti.github.io)  
EMAIL: [giorgio.nicoletti.1@phd.unipd.it](mailto:giorgio.nicoletti.1@phd.unipd.it)

## EDUCATION

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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

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

## CONFERENCES, SCHOOLS AND WORKSHOPS

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- 30<sup>TH</sup> NOV - 18<sup>TH</sup> DEC 2020  
**SCHOOL** **Winter School on Quantitative Systems Biology: Quantitative Approaches in Ecosystem Ecology**, International Center for Theoretical Physics, Trieste, Italy.
- 18<sup>TH</sup> - 19<sup>TH</sup> NOV 2020  
**WORKSHOP** **Physics of Brains**, organized by PoLNET and sponsored by the York Biomedical Research Institute and the Institute of Physics.
- 6<sup>TH</sup> - 9<sup>TH</sup> 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?*
- 29<sup>TH</sup> SEPT - 1<sup>ST</sup> 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.*
- 24<sup>TH</sup> SEPT 2020  
**WORKSHOP** **Virtual Workshop on the Role of Quantitative Theory in Biological Physics**, Emory College, Atlanta, Georgia, United States.
- 18<sup>TH</sup> - 23<sup>RD</sup> JULY 2020  
**CONFERENCE** **29th Annual Computational Neuroscience Meeting**, organized by the Organization for Computational Neuroscience.
- 29<sup>TH</sup> JUNE - 3<sup>RD</sup> 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.
- 4<sup>TH</sup> JUNE 2020  
**WORKSHOP** **Learning Physics with Machine Learning Virtual Workshop**, Emory College, Atlanta, Georgia, United States.
- 30<sup>TH</sup> APR 2020  
**WORKSHOP** **Physics of Behavior Virtual Workshop**, Emory College, Atlanta, Georgia, United States.
- 16<sup>TH</sup> - 18<sup>TH</sup> JAN 2020  
**WORKSHOP** **LiphLab Winter Workshop 2020**, Folgaria, Italy.  
**MAIN PRESENTATION**: *Testing the critical brain hypothesis using a phenomenological renormalization group.*
- 9<sup>TH</sup> - 16<sup>TH</sup> 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.
- 1<sup>ST</sup> - 3<sup>RD</sup> 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 EXPERIENCE

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

## SERVICE AND MEMBERSHIPS

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2021 - PRESENT	Reviewer for PLOS COMPUTATIONAL BIOLOGY.
ACADEMIC YEAR 2020/2021	Elected representative in the <b>PhD Program Committee</b> , Department of Physics and Astronomy, University of Padova.
ACADEMIC YEAR 2020/2021	Elected representative in the <b>Academic Board of the PhD program</b> , Department of Physics and Astronomy, University of Padova.

## HONORS AND AWARDS

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2020	Graduate Alumni Award for the best students who graduated in the academic year 2018/2019, <b>University of Padova</b> .
15 <sup>TH</sup> JULY 2019	First student to graduate in the Master of Science in Physics, <b>University of Padova</b> .
FEB 2017	Winner of the grant for the best students of scientific first cycle degrees, granted by <b>University of Padova</b> .
10 <sup>TH</sup> OCT 2014	Winner of the award for the high school students with the highest final grade and honors, granted by <b>MIUR</b> , the Italian Ministry for Education, University and Research.
26 <sup>TH</sup> - 31 <sup>ST</sup> JULY 2013	Winner of a nationwide selection among the best high school students in Italy held by <b>Scuola Normale Superiore di Pisa</b> to attend a summer program in Rome, hosted by <i>Accademia Nazionale dei Lincei</i> .

## IT SKILLS

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ADVANCED KNOWLEDGE	Python
GOOD KNOWLEDGE	Mathematica, $\LaTeX$
BASIC KNOWLEDGE	C++, ROOT, Matlab, LINUX, HTML, CSS
2020 - PRESENT	Web curator and administrator of the website of the <a href="#">Laboratory of Interdisciplinary Physics</a> , University of Padova, and of the related academic initiatives (workshops, conferences, etc.).

## LANGUAGES

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ITALIAN: Native.

ENGLISH: Fluent, C1 level per the Cambridge English assessment.

FRENCH: Intermediate knowledge, B1-B2 level per the Erasmus OLS language assessment.