

# Leonardo PACCIANI-MORI

## PERSONAL DATA

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ADDRESS: Department of Physics and Astronomy "Galileo Galilei"  
Via Francesco Marzolo 8, 35131 Padua, Italy  
Room 382  
PHONE (OFFICE): +39 049 8277203  
PERSONAL WEBSITE: [leonardo.pm](http://leonardo.pm)  
EMAIL: [leonardo.paccianimori@phd.unipd.it](mailto:leonardo.paccianimori@phd.unipd.it)

## RESEARCH EXPERIENCE

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1<sup>ST</sup> APR 2019 - 30<sup>TH</sup> SEP 2019 Fellow of the Department of Physics, **Harvard University**, Cambridge (MA)  
**Supervisors:** Dr. Andrea GIOMETTO, Prof. Andrew MURRAY, Prof. David NELSON  
*I have worked as a visiting graduate student in the groups of Andrew Murray and David Nelson, supervised by Andrea Giometto*



## EDUCATION

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1<sup>ST</sup> OCT 2017 - PRESENT DAY Ph.D. student in *Physics*, **University of Padua**, Padua (Italy)  
**Supervisor:** Prof. Amos MARITAN  
**Co-supervisor:** Prof. Samir SUWEIS  
Expected graduation period: December 2020



1<sup>ST</sup> OCT 2015 - 26<sup>TH</sup> SEP 2017 Master's Degree in *Physics*, **University of Padua**, Padua (Italy)  
Theoretical course of study  
**Thesis:** *A physics approach to ecosystem dynamics*  
**Advisor:** Prof. Amos MARITAN  
FINAL GRADE: 110/110 *cum laude*



1<sup>ST</sup> OCT 2012 - 22<sup>ND</sup> JUL 2015 Bachelor's Degree in *Physics*, **University of Padua**, Padua (Italy)  
**Thesis:** *Curvature effect on patterning dynamics on spherical membranes*  
**Advisor:** Prof. ENZO ORLANDINI  
FINAL GRADE: 108/110



## PUBLICATIONS

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- Pacciani-Mori L., GIOMETTO A., SUWEIS S. AND MARITAN A. (2020) Dynamic metabolic adaptation can promote species coexistence in competitive microbial communities, *PLOS Computational Biology*, 16(5): e1007896. DOI: [10.1371/journal.pcbi.1007896](https://doi.org/10.1371/journal.pcbi.1007896).
- Pacciani-Mori L., SUWEIS S., MARITAN A. AND GIOMETTO A.: Constrained proteome allocation affects species coexistence in consumer-resource models, *submitted for review*.

## ATTENDED CONFERENCES, WORKSHOPS AND SCHOOLS

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7<sup>TH</sup> -10<sup>TH</sup> JAN 2020 **English for Academic Writing**  
Forlì campus, *University of Bologna*  
[Website](#)

- 6<sup>TH</sup>-10<sup>TH</sup> MAR 2019 **Quinta Conferenza Italiana degli Studenti di Fisica**  
**(5<sup>th</sup> Italian Conference of Physics Students)**  
 Department of Physics, *University of Milan*  
**Contributed talk:** STRATEGIE METABOLICHE ADATTIVE: UNA RISPOSTA (APPARENTEMENTE) SEMPLICE ED EFFICACE A MOLTI PROBLEMI IN ECOLOGIA E MICROBIOLOGIA  
*(Adaptive metabolic strategies: an (apparently) simple and effective answer to many challenging problems in ecology and microbiology)*  
**Contributed poster:** ADAPTIVE CONSUMER-RESOURCE MODELS CAN EXPLAIN DIAUXIC SHIFTS AND THE VIOLATION OF THE COMPETITIVE EXCLUSION PRINCIPLE  
[Website](#)
- 20<sup>TH</sup> DEC 2018 **The physics of complex systems IV: from Padova to the rest of the world and back**  
 Department of Physics and Astronomy, *University of Padua*  
**Invited talk:** ADAPTIVE METABOLIC STRATEGIES: AN (APPARENTLY) SIMPLE AND EFFECTIVE ANSWER TO MANY CHALLENGING PROBLEMS IN ECOLOGY AND MICROBIOLOGY
- 23<sup>RD</sup>-28<sup>TH</sup> SEP 2018 **Conference on Complex Systems 2018**  
 Vellidio Convention Center, Aristotle University of Thessaloniki  
**Contributed talk:** ADAPTIVE METABOLIC STRATEGIES EXPLAIN DIAUXIC SHIFTS AND PROMOTE SPECIES COEXISTENCE  
[Website](#)
- 17<sup>TH</sup>-21<sup>ST</sup> SEP 2018 **104<sup>o</sup> Congresso della Società Italiana di Fisica**  
**(104<sup>th</sup> Congress of the Italian Physical Society)**  
 Department of Physics, University of Calabria  
**Invited talk:** FISICA ED ECOSISTEMI: IL DILEMMA DEL RAPPORTO STABILITÀ-BIODIVERSITÀ  
*(Physics and ecosystems: the dilemma of the stability-biodiversity relationship)*  
[Website](#)
- 20<sup>TH</sup>-23<sup>RD</sup> APR 2018 **Quarta Conferenza Italiana degli Studenti di Fisica**  
**(4<sup>th</sup> Italian Conference of Physics Students)**  
 Department of Physics, University of Pisa  
**Contributed talk:** FISICA ED ECOSISTEMI: IL DILEMMA DEL RAPPORTO STABILITÀ-BIODIVERSITÀ  
*(Physics and ecosystems: the dilemma of the stability-biodiversity relationship)*  
[Website](#)
- 5<sup>TH</sup>-7<sup>TH</sup> APR 2018 **Stochastic Models in Ecology and Evolutionary Biology**  
 Venetian Institute of Sciences, Letters and Arts, Venice  
**Contributed talk:** THE ROLE OF METABOLIC TRADE-OFFS IN THE ESTABLISHMENT OF BIODIVERSITY
- 19<sup>TH</sup> FEB - 16<sup>TH</sup> MAR 2018 **Spring College on the Physics of Complex Systems**  
 International Centre for Theoretical Physics, Trieste  
[Website](#)
- 7<sup>TH</sup>-13<sup>TH</sup> AUG 2017 **32<sup>nd</sup> International Conference of Physics Students**  
 University of Turin  
 Attended as *national delegate* of the Italian Association of Physics Students  
[Website](#)
- 11<sup>TH</sup>-13<sup>TH</sup> MAY 2017 **Terza Conferenza Italiana degli Studenti di Fisica**  
**(3<sup>rd</sup> Italian Conference of Physics Students)**  
 Department of Physics, University of Bari  
 Attended as *spokesperson of the Local Committee of Padua of the Italian Association of Physics Students*  
[Website](#)

3<sup>RD</sup>-6<sup>TH</sup> OCT 2016 **Venice meeting on fluctuations in small complex systems III**  
Venetian Institute of Sciences, Letters and Arts, Venice

22<sup>ND</sup>-24<sup>TH</sup> APR 2016 **Seconda Conferenza Italiana degli Studenti di Fisica**  
(2<sup>nd</sup> Italian Conference of Physics Students)  
Department of Physics, University of Turin  
[Website](#)

## HONORS AND AWARDS

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**Best contributed talk** at the 4<sup>th</sup> Italian Conference of Physics Students.

**Best poster** at the 5<sup>th</sup> Italian Conference of Physics Students.

## ORGANIZED CONFERENCES, WORKSHOPS AND SCHOOLS

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OCT 2016 - MAY 2017 **Sei Spritz Facili**  
University of Padua, *Department of Physics and Astronomy*  
*Series of six informal lectures held by professors for the students of Physics and Astronomy, covering the areas over which research is carried out in the Department.*  
*Activity of the Padua Local Committee of the Italian Association of Physics Students.*

## TEACHING EXPERIENCE

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6<sup>TH</sup> - 13<sup>TH</sup> DEC 2018  **$\LaTeX$  for dummies: guida di sopravvivenza per fisici**  
( **$\LaTeX$  for dummies: a survival guide for physicists**)  
Department of Physics, *University of Padua*  
*Introductory 4-lecture course on  $\LaTeX$  for complete beginners, organized with the Padua Local Committee of the Italian Association of Physics Students.*  
[Website](#)

## SERVICE AND MEMBERSHIPS

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22<sup>TH</sup> OCT 2019 - PRESENT DAY **Member of the Association of PhD students and graduates in Italy**

20<sup>TH</sup> OCT 2018 - 30<sup>TH</sup> SEP 2019 **Vicepresident of the Italian Association of Physics Students**

23<sup>RD</sup> SEP 2018 - PRESENT DAY **Member of the Complex Systems Society**

1<sup>ST</sup> OCT 2017 - 30<sup>TH</sup> SEP 2019 **Secretary of the Italian Association of Physics Students**  
Elected during the 3<sup>rd</sup> Italian Conference of Physics Students

2<sup>ND</sup> MAY 2016 - 30<sup>TH</sup> SEP 2017 **President of the Local Committee of Padua of the Italian Association of Physics Students**

26<sup>TH</sup> FEB 2016 - PRESENT DAY **Member of the Italian Association of Physics Students**

## LANGUAGES

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ITALIAN: Native  
ENGLISH: Fluent  
SPANISH: Intermediate

**Other languages studied (mainly for personal interest and at basic or elementary level):**  
Japanese, Chinese (Mandarin), Esperanto, Greek (modern), German.