

# Leonardo PACCIANI-MORI

## PERSONAL DATA

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ADDRESS: Department of Physics and Astronomy "Galileo Galilei"  
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## 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

1<sup>ST</sup> OCT 2017 - 30<sup>TH</sup> SEP 2020



Ph.D. student in *Physics*, **University of Padua**, Padua  
Supervisor: Prof. Amos MARITAN  
Co-supervisor: Dr. Samir SUWEIS

## EDUCATION

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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., SUWEIS S. AND MARITAN A.: *Adaptive consumer-resource models can explain diauxic shifts and the violation of the Competitive Exclusion Principle*, bioRxiv, DOI: [10.1101/385724](https://doi.org/10.1101/385724), December 2018.

## ATTENDED CONFERENCES, WORKSHOPS AND SCHOOLS

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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**  
Invited talk: ADAPTIVE METABOLIC STRATEGIES: AN (APPARENTLY) SIMPLE AND EFFECTIVE ANSWER TO MANY CHALLENGING PROBLEMS IN ECOLOGY AND MICROBIOLOGY
- 16<sup>TH</sup>-18<sup>TH</sup> DEC 2018 **LIPh Winter Workshop 2018**  
 Hotel Vittoria, Folgaria  
Invited talk: ADAPTIVE CONSUMER-RESOURCE MODELS CAN EXPLAIN DIAUXIC SHIFTS AND THE VIOLATION OF THE COMPETITIVE EXCLUSION PRINCIPLE  
[Website](#)
- 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](#)
- 19<sup>TH</sup>-20<sup>RD</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](#)

## 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

*Series of six lectures 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)**

University of Padua, Department of Physics

*Introductory 4-lecture course on  $\LaTeX$  for complete beginners.*

*Activity of the Padua Local Committee of the Italian Association of Physics Students.*

[Website](#)

## ASSOCIATIONS

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20<sup>TH</sup> OCT 2018 - PRESENT DAY    **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 - PRESENT DAY    **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:    Decent

**Other languages studied in the past:**

Japanese, German, Greek (modern), Esperanto (mainly for personal interest and at basic or elementary level).

## COMPUTER SKILLS

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Basic knowledge:    Office suites (LibreOffice, Excel, Word, PowerPoint), WINDOWS, ROOT

Good knowledge:    C++, Python

Advanced knowledge:    LINUX (Debian and Debian-based distributions),  $\LaTeX$ , Mathematica