# Leonardo Pacciani-Mori

### PERSONAL DATA

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### RESEARCH EXPERIENCE

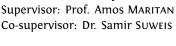
1<sup>ST</sup> APR 2019 - 30<sup>TH</sup> SEP 2019

Fellow of the Department of Physics, **Harvard University**, Cambridge (MA) Supervisors: Dr. Andrea GIOMETTO, Prof. Andrew MURRAY, Prof. David NELSON



 $1^{ST}$  Oct 2017 -  $30^{TH}$  Sep 2020

Ph.D. student in *Physics*, University of Padova, Padova



## **EDUCATION**

 $1^{ST}$  Oct 2015 -  $26^{TH}$  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**

- 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, December 2018.

### ATTENDED CONFERENCES, WORKSHOPS AND SCHOOLS

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° 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

(4th 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

 $Attended\ as\ spokes person\ of\ the\ Local\ Committee\ of\ Padua\ of\ the\ Italian\ Association$ 

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**

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

# ORGANIZED CONFERENCES, WORKSHOPS AND SCHOOLS

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

6<sup>TH</sup> - 13<sup>TH</sup> DEC 2018 ET<sub>E</sub>X for dummies: guida di sopravvivenza per fisici

(MEX for dummies: a survival guide for physicists)

University of Padua, Department of Physics Introductory 4-lecture course on **E**<sub>F</sub>X for complete beginners.

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

Website

### **ASSOCIATIONS**

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**

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

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

Good knowledge: C++, Python

Advanced knowledge: LINUX (Debian and Debian-based distributions), LITEX, Mathematica