Leonardo Pacciani-Mori

PERSONAL DATA

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RESEARCH EXPERIENCE

1ST APR 2019 - 30TH 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 Prof. Andrew W. Murray and Prof. David Nelson, supervised by Dr. Andrea Giometto

EDUCATION

1ST OCT 2017 - 30TH SEP 2020

Ph.D. student in *Physics*, University of Padua, Padua (Italy)



Supervisor: Prof. Amos Maritan **Co-supervisor:** Dr. Samir Suweis

Expected graduation period: December 2020

1ST OCT 2015 - 26TH 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*

1ST OCT 2012 - 22ND 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., GIOMETTO A., SUWEIS S. AND MARITAN A.: Adaptive metabolic strategies in consumerresource models, bioRxiv, DOI: 10.1101/385724, August 2018.
- PACCIANI-MORI L., GIOMETTO A., SUWEIS S. AND MARITAN A.: Proteome allocation influences population dynamics in microbial communities, bioRxiv, DOI: 10.1101/2020.01.27.921478, January 2020.
- PACCIANI-MORI L., SUWEIS S., MARITAN A. AND GIOMETTO A.: Constrained proteome allocation in consumer-resource models, bioRxiv, DOI: 10.1101/***, January 2020.

ATTENDED CONFERENCES, WORKSHOPS AND SCHOOLS

7TH -10TH JAN 2020 English for Academic Writing

Forlì campus, University of Bologna

Website

6TH-10TH MAR 2019 Quinta Conferenza Italiana degli Studenti di Fisica

(5th 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

20TH DEC 2018 The physics of complex systems IV: from Padova to the rest of the

world and back

Department of Physics, University of Padua

Invited talk: Adaptive metabolic strategies: an (apparently) simple and effective

ANSWER TO MANY CHALLENGING PROBLEMS IN ECOLOGY AND MICROBIOLOGY

16TH-18TH DEC 2018 LIPh Winter Workshop 2018

Folgaria (Italy)

Invited talk: Adaptive consumer-resource models can explain diauxic shifts and the

VIOLATION OF THE COMPETITIVE EXCLUSION PRINCIPLE

Website

23RD-28TH 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

19TH-20RD SEP 2018 104° Congresso della Società Italiana di Fisica

(104th 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

20TH-23RD 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

5TH-7TH 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

19TH FEB - 16TH MAR 2018 Spring College on the Physics of Complex Systems

International Centre for Theoretical Physics, Trieste

Website

7TH-13TH AUG 2017 32nd International Conference of Physics Students

University of Turin

Attended as national delegate of the Italian Association of Physics Students

Website

11TH-13TH MAY 2017 Terza Conferenza Italiana degli Studenti di Fisica

(3rd 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

3RD-6TH OCT 2016 Venice meeting on fluctuations in small complex systems III

Venetian Institute of Sciences, Letters and Arts, Venice

22ND-24TH APR 2016 Seconda Conferenza Italiana degli Studenti di Fisica

(2nd Italian Conference of Physics Students) Department of Physics, University of Turin

Website

ORGANIZED CONFERENCES, WORKSHOPS AND SCHOOLS

OCT 2016 - MAY 2017 Sei Spritz Facili

University of Padua, Department of Physics

Series of six informal lectures 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

6TH - 13TH DEC 2018 ETeX for dummies: guida di sopravvivenza per fisici

(ETeX for dummies: a survival guide for physicists)

Department of Physics, University of Padua

Introductory 4-lecture course on **M**EX for complete beginners, organized by the Padua Local

Committee of the Italian Association of Physics Students.

Website

SERVICE AND MEMBERSHIPS

22TH OCT 2019 - PRESENT DAY Member of the Association of PhD students and graduates in Italy

20TH OCT 2018 - 30TH SEP 2019 Vicepresident of the Italian Association of Physics Students

23RD SEP 2018 - PRESENT DAY Member of the Complex Systems Society

1ST OCT 2017 - 30TH SEP 2019 Secretary of the Italian Association of Physics Students

Elected during the 3rd Italian Conference of Physics Students

2ND MAY 2016 - 30TH SEP 2017 President of the Local Committee of Padua of the Italian

Association of Physics Students

26TH FEB 2016 - PRESENT DAY Member of the Italian Association of Physics Students

LANGUAGES

ITALIAN: Native ENGLISH: Fluent SPANISH: Beginner

Other languages studied in the past (mainly for personal interest and at basic or elementary level): Japanese, German, Greek (modern), Esperanto.