

from Feb. 2015
to June 2015

UNDERGRADUATE PERSONAL FELLOWSHIP

@ Statistical Physics group in SISSA (Trieste) under supervision of Prof. Mussardo.

RESEARCH INTERESTS

My main interest is the concept of universality in out-of equilibrium statistical physics. In my PhD thesis I investigated both quantum and classical systems, namely Exciton-Polaritons and classical growth model, using field theoretical techniques such as Schwinger-Keldysh and Martin-Siggia-Rose-Janssen-De Dominicis formalisms. My recent research focuses on a paradigmatic equation for modeling out-of-equilibrium classical phenomena, the Kardar-Parisi-Zhang (KPZ) equation, whose universal features are studied using the Non-Perturbative Renormalization Group (NPRG) technique.

PUBLICATIONS

- 2018** • Kardar-Parisi-Zhang universality in the phase distributions of one-dimensional exciton-polaritons
Davide Squizzato, Léonie Canet, and Anna Minguzzi, Phys. Rev. B **97**, 195453

In PREPARATION

- 2019** • Kardar-Parisi-Zhang Equation with Broken Galilean Invariance
Davide Squizzato and Léonie Canet

CONTRIBUTED TALKS in CONFERENCES

- Aug. 29th 2018** Kardar-Parisi-Zhang universality in the phase distributions of one-dimensional exciton-polaritons
JMC 2018, Journées de la Matière Condensée, UGA Grenoble (FRA).
- April 24th 2018** Kardar-Parisi-Zhang universality in the phase distributions of one-dimensional exciton-polaritons
Workshop "Turbulence and Polaritons", CPTGA Grenoble (FRA).

INVITED TALKS

- Feb. 23rd 2018** Kardar-Parisi-Zhang universality in the phase distributions of one-dimensional exciton-polaritons
ICTP Spring School on Complex Systems, Trieste (ITA). Invited seminar.
- Oct. 3rd 2017** Kardar-Parisi-Zhang universality in the phase distributions of one-dimensional exciton-polaritons
LPTMS, Paris Sud University (FRA). Invited seminar.

POSTERS

- 1-4 May 2018** MECO43: 43nd Conference of the Middle-European Cooperation in Statistical Physics
AGH, Krakow (POL)
- 8-12 May 2017** QFLM2017: Quantum Fluids of Light and Matter
Cargese, Corsica (FRA)
- 7-10 Mar. 2017** Functional Renormalization Group 2017
IWH Heidelberg (DE)

8-10 Feb. 2017 MECO42: 42nd Conference of the Middle-European Cooperation in Statistical Physics
ENS, Lyon (FRA)

ATTENDED CONFERENCES

19-23 Sept. 2016 ERG2016: 8th Conference on the Exact Renormalization Group
ICTP, Trieste (ITA)

13-16 July 2016 NEQFLUIDS2016: Classical and Quantum Fluids Out of Equilibrium
Villard de Lans, Grenoble (FRA)

TEACHING

Thermodynamics a.y. 2017/18, 2018/2019
Travaux pratiques, 40 hours per year, 2nd year of bachelor in Physics at UGA Grenoble (FRA).

Basic programming for Physicists a.y. 2017/18, 2018/2019
Travaux dirigés, 20 hours per year, 3rd year of bachelor in Physics at UGA Grenoble (FRA).

PERSONAL SKILLS

Theoretical expertise

- Schwinger-Keldysh/MSR-JdD field theories
- Exciton-Polaritons systems
- Continuum description of driven-dissipative open quantum systems
- Continuum description of classical growth-model
- KPZ universality class
- Non-Perturbative Renormalization Group
- Numerical integration of integro-differential equations

Computer skills ■ Programming languages: Python, Mathematica, Fortran, AWK, Bash, C

Other skills and Interests Lifeguard, Alpinism assistant instructor, Backcountry/Alpinism Ski, Climbing, Surf, Mountain Biking, Travelling, Street and B&W Photography, Photojournalism, History and Philosophical grounds of libertarian movements

Languages Italian (mother tongue), French and English (proficient), Russian (beginner)