

Curriculum vitae et studiorum



Languages

- Mother tongue: Italian
- Other languages: English

Current position

PhD student, Department of Mathematics,
"Sapienza" University of Rome.
Advisors: M. Correggi, M. Falconi.

Education and Degrees

- 2016: Master degree in Mathematics, University of Rome "La Sapienza"
grade: 110/110 cum laude
thesis: "The inverse spectral problem for quantum graphs"
advisors: A. Teta, D. Finco;
- 2014: Bachelor degree in Mathematics, University of Rome "La Sapienza"
grade: 110/110 cum laude
thesis: "Black-Scholes equation"
advisor: D. Benedetto;
- 2010: high school diploma, liceo scientifico "E.Majorana"
grade: 100/100 cum laude.

Mario Olevi

Research interests

- Effective limits of models of quantum particles interacting with quantized radiation.
- Semiclassical analysis in infinite dimensions.
- Spectral theory on quantum graphs.

Publications

1. M. Correggi, M. Falconi, M. O., “Magnetic Laplacians as the Quasi-Classical limit of Pauli-Fierz-type Models”, preprint arXiv: 1711.07413 [math-ph], 2018, to appear in *J. Spectr. Theory*.
2. D. Finco, M. O., “On the inverse spectral problems for quantum graphs”, in *Advances in Quantum Mechanics: Contemporary Trends and Open Problems*, A. Michelangeli, G. Dell’Antonio eds., pp. 267-281, 2017.

Teaching Activities

- 2017: tutor for the course
“Physical Mathematics”, Department of Mathematics,
“Sapienza” University of Rome.
- 2017: tutor for the course
“Mathematical and Computer Methods for Biology”,
Department of Biology, “Sapienza” University of Rome.
- 2016: tutor for the course “Probability 1” for the
project “laurea tutoring 2”, Department of Mathematics,
“Sapienza” University of Rome.
- before 2016: several private tutorings in Mathematics and Physics.

Visits

- 2018: visit to “Université de Rennes I”, France;
invitation from: Z. Ammari.
period: one week in April 2018.
- 2018: PhD student in visit at “University of Tübingen”, Germany;
supervisor: S. Teufel.
period: February-July 2018.
- 2016: research training fellowship for undergraduate students

at SISSA, Trieste, Italy;
supervisor: A. Michelangeli.
period: one week in May 2016.

Talks

- 2019: Contributed talk at the workshop
“Spectral theory & semiclassical analysis”,
in Institute Mittag-Leffler, Stockholm (Sweden);
title: “Derivation of time-dependent point
interactions from polaron models.”
from a joint work with R. Carlone, M. Correggi, M. Falconi.
- 2018: Contributed talk at the conference
“Gran Sasso Quantum Meetings: from many particle
systems to quantum fluids”, in “GSSI”, Italy;
title: “Microscopic derivation for time-dependent
point interactions in ionization models”,
from a joint work with R. Carlone, M. Correggi, M. Falconi.
- 2018: Talk in “Université de Rennes I”, France;
title: “Derivation of Magnetic Laplacians from
Microscopic Models”,
from a joint work with M. Correggi, M. Falconi.
invitation from: Z. Ammari.
- 2018: Contributed talk at the conference
“Mathematical Challenges in Quantum Mechanics”,
in “Sapienza” University of Rome, Italy
title: “Quasi-classical limit for the Pauli-Fierz model”.
from a joint work with M. Correggi, M. Falconi.
- 2018: Talk in “Sapienza” University of Rome, Italy;
title: “The Mathematical theory of Mechanics:
between Classical and Quantum”,
for the cycle “Young researcher seminar”.

Conferences

- 2019: speaker and participant at the workshop
“Spectral theory & semiclassical analysis”
in Institute Mittag-Leffler, Stockholm (Sweden)
Contributed talk, title:
“Derivation of time-dependent point
interactions from polaron models.”
- 2018: speaker and participant at the conference



- “Gran Sasso Quantum Meetings: from many particle systems to quantum fluids”
in GSSI, L’Aquila (Italy)
Contributed talk, title:
“Microscopic derivation for time-dependent point interactions in ionization models.”
- 2018: participant at the conference
“Trails in Quantum Mechanics and Surroundings”
in Politecnico di Torino, Torino (Italy)
- 2018: participant at the conferences
“International Congress of Mathematical Physics (ICMP)”
and “Young Researchers Symposium”
in Centre Mont-Royal, Montreal (Canada)
- 2018: speaker and participant at the conference
“Mathematical Challenges in Quantum Mechanics”,
“Sapienza” University of Rome (Italy)
Contributed talk, title:
“Quasi-classical limit for the Pauli-Fierz model.”
- 2018: participant at the conference
“Trails in Quantum Mechanics and Surroundings”,
in “S.I.S.S.A.”, Trieste (Italy)
- 2017: participant at the one-day meeting
“The many aspects of Low Energy Physics”,
in “Federico II” University of Naples (Italy)
- 2017: participant at the summer school
“Insubria Summer School in Mathematical Physics”
in “University of Insubria”, Como (Italy)
- 2017: participant at the summer school
“Current topics in Mathematical Physics”
in “University of Zurich”, Zurich (Switzerland)
- 2017: participant at the conference
“Quantum Mean Field and Related Problems”
in “Université Paris 13”, Paris (France)
- 2017: participant at the conference “Spectral Days 2017”
in “Universität Stuttgart”, Stuttgart (Germany)
- 2016: participant at the International Indam workshop
“Contemporary Trends in the Mathematics
of Quantum Mechanics”

Mario De Luca

Awards, grants, etc.

- 2019: fellowship for internationalization of “Sapienza” University of Rome, for the project “Magnetic Schrödinger Operators in Quantum Mechanics”, in joint work with PhD L. Oddis, obtained fundings for a visit of 3 months at the “Université de Rennes I” (France).
- 2018: fellowship for internationalization of “Sapienza” University of Rome, for the project “Effective Limits in Quantum Dynamics”, in joint work with PhD M. Moscolari, obtained fundings for a visit of 6 months at the “University of Tübingen” (Germany).
- 2018: fellowship “Progetti per Avvio alla Ricerca - Tipo 1, 2018” of “Sapienza” University of Rome, for the project “Dinamica effettiva come limite quasi-classico di modelli di interazione campo-particella”, obtained fundings for research activities.
- 2017: fellowship “Progetti per Avvio alla Ricerca - Tipo 1, 2017” of “Sapienza” University of Rome, for the project “Il limite semiclassico per il modello di interazione di Pauli-Fierz”, obtained fundings for research activities.

Other skills

Programming languages: C++, Fortran 90, Matlab.
Good knowledge of Linux system and LaTeX.

