Laura Aquilanti

Personal Data

Current address:
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Current Position

Nov 2018-Present

PhD in Mathematical Models for Engineering, Electromagnetics and Nanosciences

Istitute: Sapienza University, Rome

Department: Basic and applied sciences for engineering (SBAI)

Curriculum: Mathematics for Engineering

Supervisor: F. Camilli (SBAI)

Research Topics: PDEs analysis, Mean Field Games theory, Optimization

Education and Training

Oct 2015-Dec 2017

Master's degree in Mathematics and Applications LM-40

Istitute Camerino (Mc) University, Italy

Studies: optimal control theory, dynamic systems, nonlinear control theory, functional analysis and computational graphics.

Thesis: Reaction-diffusion models for population dynamics in the presence of a climate shift: asymptotic analysis and control.

Final grade: 110/110 cum summa laude

Apr 2017-Jun 2017

Erasmus+ traineeship

Master thesis in reaction diffusion equations

Istitute: EHESS, Paris, France

Oct 2012-Oct 2015

Bachelor's Degree in Mathematics and Applications L-35

Istitute: Camerino (Mc) University, Italy

Thesis: Control theory for the stability of nonlinear systems and applications.

Final grade: 110/110 cum summa laude

Experience

Feb 2020- March 2020	**Visiting Researcher** Istitute: University of Rennes 1 Department: I.R.M.A.R
Oct 2019-Dec 2019	**Lecturer on Analysis I** Istitute: Sapienza University, Rome Department: Managment Engineering LM-31
Jul-Nov 2018	**Scholarship "Data-driven predictive models for the life cycle of Li-Ion batteries"** Istitute: Camerino (Mc) University and ENEA (National Agency for new technologies, energy and sustainable development) (Rm)
May 2018	**Substitute Teacher** Period: 14/05/18-26/05/18, (18 hours per week) School: Liceo Classico F. Stelluti, Fabriano (An) Subjects: Mathematics and Physics (A-27)
Nov 2017-May 2018	**Lecturer on basic Mathematics** Istitute: Camerino (Mc) University, Italy Department: Chemical and Pharmaceutical Technologies LM-13

Publications

[1] L. Aquilanti, S. Cacace, F. Camilli, R. De Maio
A Mean Field Games Approach to Cluster Analysis, Applied Mathematics and Optimization (2020)
https://doi.org/10.1007/s00245-019-09646-2

[2] L. Aquilanti, S. Cacace, F. Camilli, R. De Maio.
A Mean Field Games model for finite mixtures of Bernoulli distributions
submitted, https://arxiv.org/pdf/2004.08119.pdf

Seminars

7 May 2020	**Séminaire EDP de l'IRMAR** Title: *Finite Mixture models for soft clustering via multi population Mean Field Games system* (online seminar) Istitute: University of Rennes 1, I.R.M.A.R

Activities

Conference on Mean Field Games and related topics-5
Septembr, 9-13 2019, Levico (TN)

Summer School on Mean Field Games
June 10-14, 2019, CIME Fundation (*with partial financial support*), Cetraro (CS).

Winter school on "Stochastic PDEs and Mean-Field Games"
January 14-16, 2019, University of Bologna

Mfgdayparis2018: Journées project ANR: "Mean Field Games"
December, 17-18 2018, Paris.

Languages

Italian: native
English: fluent, *First Certificate in English (FCE), Level B2*
French: basic knowledge

Computer Skills

Programming Language:	C, Matlab (basic)
Other knowledge:	LaTeX, PowerPoint, Excel, Word,

Roma, May 19, 2020 Laura Aquilanti