

Alessandro Ciallella

PERSONAL DATA

WORK ADDRESS: Via A. Scarpa 16, 00161 Rome, Italy
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POSITION

JULY 2018 - TODAY **Postdoc in Probability**
Dept. of Basic and Applied Sciences for Engineering (SBAI),
Sapienza University of Rome,
Postdoc Advisor: Prof. Barbara Vantaggi.

EDUCATION

FEBRUARY 2018 **PhD in Mathematics for Engineering**,
Dept. of Basic and Applied Sciences for Engineering (SBAI),
Sapienza University of Rome.
Thesis Title:
Particle-based modeling of dynamics in presence of obstacles
Advisor: Prof. Emilio N. M. Cirillo (Sapienza)

RESEARCH TOPICS: Linear Boltzmann equation;
Random walk;
Lorentz model;
Monte Carlo methods;
Dynamics in presence of obstacles.

NOVEMBER 2014 **Master Degree in Mathematics**
Sapienza University of Rome
Final mark: 110/110 cum laude
Thesis Title:
Kinetic limit for a non-homogeneous Kac Model
Supervisor: Prof. Mario Pulvirenti (Sapienza)

DECEMBER 2011 **Bachelor Degree in Mathematics**
Sapienza University of Rome
Final mark: 110/110
Thesis Title:
Vincoli Matematici e Vincoli Reali
Supervisor: Prof. Dario Benedetto (Sapienza)

JULY 2007 **High school degree**
Liceo Classico *O. Fascitelli*, Isernia, Italy
Final mark: 100/100

PUBLICATIONS

- A. Ciallella, E. N. M. Cirillo,
[Conditional expectation of the duration of the classical gambler problem with defect](#),
In publication in *Eur. Phys. J. Special Topics*, 2019. Preprint [arXiv:1808.07919](#)
- A. Ciallella, E. N. M. Cirillo, P. L. Curseu, A. Muntean.
[Free to move or trapped in your group: Mathematical modeling of information overload and coordination in crowded populations](#),
M3AS: Mathematical Models and Methods in Applied Sciences, **28**, 1831–1856, 2018.
- A. Ciallella, E. N. M. Cirillo, J. Sohler.
[Residence time of symmetric random walkers in a strip with large reflective obstacles](#),
Physical Review E **97**, 052116, 2018.
- A. Ciallella, E. N. M. Cirillo.
[Linear Boltzmann dynamics in a strip with large reflective obstacles: stationary state and residence time](#),
Kinetic & Related Models **11**, 6, 1475-1501, 2018.
- A. Ciallella.
[On the linear Boltzmann transport equation: a Monte Carlo algorithm for stationary solutions and residence times in presence of obstacles](#),
AIMETA 2017, Proceedings of the 23th Conference of the Italian Assoc. Theor. Appl. Mech., Salerno, 952–960, 2017.

CONGRESSES, SCHOOLS AND WORKSHOPS

Organizer and speaker at minisymposium “New Trends in Mathematical Models for Applications” in “Italian Society of Applied and Industrial Mathematics (SIMAI)” congress, Rome, Italy,

Talk title: “Pedestrian dynamics in dark regions”,
July 02-06, 2018;

Speaker at “AIMETA 2017” congress, Salerno, Italy,

Talk title: “Obstacles induced jamming in the linear Boltzmann dynamics”,
September 04-07, 2017;

Speaker at “Assemblea Scientifica GNFM 2017” congress, Montecatini Terme (PT), Italy,

Talk title: “Lorentz gas in a strip with obstacles”,
May 04-06, 2017;

Poster presentation at “IMCS Complexity Science Winter School”, TU Eindhoven,

Poster title: “Crossing time for linear Boltzmann dynamics in a strip in presence of obstacle”,
February 13-17, 2017;

Summer School “Methods and Models of Kinetic Theory”, Porto Ercole, Italy,
June 11-16, 2018;

Workshop “Stochastic Dynamics out of equilibrium”, IHP Paris,
June 12-16, 2017;

Winter School “ICMS Complexity Science Winter School”, TU Eindhoven,
February 13-17, 2017;

Workshop “Kinetic Theory and its neighbours”, GSSI L’Aquila,
October 20-21, 2016;

Summer School “Methods and Models of Kinetic Theory”, Porto Ercole, Italy,
June 05-11, 2016;

Workshop “Statistical Mechanics and Evolution Equation”, Sapienza University,
January 28-29, 2016;

Workshop “Mathematical Models in social Dynamics”, Politecnico di Torino,
October 01-02, 2015.

TEACHING

Co-lecturer of Probability and Statistics for Engineering Degree, with Prof. B. Vantaggi,
Sapienza University,
A.Y. 2018/2019, 3CFU

Lecturer of Analytical Mechanics Laboratory for Engineering Degree, Sapienza University,
A.Y. 2018/2019, 3CFU;

Lecturer of Mathematics in preparatory courses for Engineering Degree, Sapienza University,
A.Y. 2016/17, A.Y. 2017/2018 and A.Y. 2018/2019;

Tutor of Probability, Project Mathworks, for Engineering Degree, Sapienza University,
A.Y. 2018/2019;

Tutor of Analytical Mechanics, Engineering Degree, Sapienza University,
A.Y. 2017/2018.

Tutor of Mathematical Analysis 2, Engineering Degree, Sapienza University,
A.Y. 2015/16, A.Y. 2016/17 and A.Y. 2017/2018;

Tutor of Mathematical Analysis 1, Engineering Degree, Sapienza University,
A.Y. 2017/2018;

LANGUAGES

ENGLISH: Good Knowledge

ITALIAN: Native

FRENCH: Basic Knowledge

SPANISH: Basic Knowledge

COMPUTER SKILLS

PROGRAMMING LANGUAGES: C/C++, Matlab, SQL.

OTHER KNOWLEDGE: \LaTeX , Mathematica, Unix, Microsoft Office Applications.