YANN-EDWIN KETA

Doctoral student

November 24th, 1995

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yketa.xyz

github.com/yketa

Education

2016-2018
MSc. in Physics *High honours*
École normale supérieure de Lyon
Specialisation in computational physics, soft matter, and statistical physics.

2015-2016
BSc. in Physics *High honours*
École normale supérieure de Lyon

2013-2015
Classes préparatoires aux grandes écoles (PCSI/PC*)
Lycée Lakanal, Sceaux
Ranked 59th in the École normale supérieure de Lyon entrance exam.

2018-2019 (Gap year)
MA in Social sciences *1st year*
École normale supérieure de Lyon

Skills

Programming

Python

Bash • C/C++

SageMath

Languages

French – Native speaker
English – Fluent

Interests

* Extreme music
* Free software culture
* Open knowledge initiatives

Research

Sep 2020 - Current
PhD: Collective dynamics in simple active matter
Laboratoire Charles Coulomb, UMR 5221 CNRS,
Université de Montpellier
Simons Collaboration on *Cracking the Glass Problem*

Supervisors: Ludovic Berthier (Montpellier), Robert L. Jack (Cambridge)

code: yketa/coll_dyn_activem **Wiki:** yketa/PhD_Wiki

Oct 2019 - July 2020
Active work in systems of self-propelled particles
Department of Applied Mathematics and Theoretical Physics,
University of Cambridge
Laboratoire Matière et Systèmes Complexes, UMR 7057 CNRS,
Université de Paris

Supervisors: Robert L. Jack, Michael E. Cates (Cambridge), Frédéric van Wijland (Paris)

code: yketa/active_work **Wiki:** yketa/DAMTP_MSC_2019_Wiki

Jan 2018 - Jul 2018
Simple model of active particles
Stewart Blusson Quantum Matter Institute,
University of British Columbia

Supervisor: Jörg Rottler

code: yketa/active_particles **Wiki:** yketa/UBC_2018_Wiki

May 2017 - Jul 2017
Numerical analysis of jamming criticality for spheroidal particles
Institutionen för fysik, Umeå universitet

Supervisor: Peter Olsson

code: yketa/shear_ellipsoids **Wiki:** yketa/Umea_2017_Wiki

Jun 2016 - Jul 2016
Leidenfrost drop impacts on surfaces with micrometric defects
Institut Lumière Matière, UMR 5306 CNRS,
Université Claude Bernard Lyon 1

Supervisors: Quentin Ehlinger, Christophe Ybert

Publications

Y.-E. Keta, É. Fodor, F. van Wijland, M. E. Cates, and R. L. Jack, "Collective motion in large deviations of active particles", Physical Review E **103**, 022603 (2021) [DOI:10.1103/PhysRevE.103.022603]. arXiv:2009.07112

Y.-E. Keta and P. Olsson, "Translational and rotational velocities in shear-driven jamming of ellipsoidal particles", Physical Review E **102**, 052905 (2020) [DOI:10.1103/PhysRevE.102.052905]. arXiv:2006.05305

T. Marschall, Y.-E. Keta, P. Olsson, and S. Teitel, "Orientational Ordering in Athermally Sheared, Aspherical, Frictionless Particles", Physical Review Letters **122**, 188002 (2019) [DOI:10.1103/PhysRevLett.122.188002]. arXiv:1806.01739

Y.-E. Keta and J. Rottler, "Cooperative motion and shear strain correlations in dense 2D systems of self-propelled soft disks", EPL **125**, 58004 (2019) [DOI:10.1209/0295-5075/125/58004].

Teaching

2018/19 - 2016/17
Oral interrogator
Lycée du Parc, Institution des Chartreux, Lycée La Martinière Diderot (Lyon)