

# YANN-EDWIN KETA

Doctoral student



November 24<sup>th</sup>, 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 59<sup>th</sup> in the École normale supérieure de Lyon entrance exam.

2018-2019 (Gap year)

**MA in Social sciences** *1<sup>st</sup> 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

**PhD: Collective dynamics in simple active matter**

- Current

Laboratoire Charles Coulomb, UMR 5221 CNRS,  
Université de Montpellier 

Simons Collaboration on *Cracking the Glass Problem*

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

Oct 2019

**Active work in systems of self-propelled particles**

- July 2020

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)

Jan 2018

**Simple model of active particles**

- Jul 2018

Stewart Blusson Quantum Matter Institute,  
University of British Columbia 

**Supervisor:** Jörg Rottler

May 2017

**Numerical analysis of jamming criticality for spheroidal particles**

- Jul 2017

Institutionen för fysik, Umeå universitet 

**Supervisor:** Peter Olsson

Jun 2016


**Leidenfrost drop impacts on surfaces with micrometric defects**


- Jul 2016


Institut Lumière Matière, UMR 5306 CNRS,  
Université Claude Bernard Lyon 1 


**Supervisors:** Quentin Ehlinger, Christophe Ybert

## Publications

YEK, R. L. Jack, and L. Berthier, “Disordered collective motion in dense assemblies of persistent particles”, *Physical Review Letters* **129**, 048002 (2022) [DOI:10.1103/PhysRevLett.129.048002].  arXiv:2201.04902

YEK, 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

YEK 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, YEK, 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

YEK 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

2022

**Python for sciences (undergraduates)**

Université de Montpellier 

2018/19

**Oral interrogator (Physics, Chemistry, Mathematics)**

2016/17

Lycée du Parc, Institution des Chartreux, Lycée La Martinière Diderot (Lyon) 