

# 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 

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



**code:**  yketa/coll\_dyn\_activem

**Wiki:**  yketa/PhD\_Wiki


Oct 2019


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

- Jul 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)


**code:**  yketa/active\_work

**Wiki:**  yketa/DAMTP\_MSC\_2019\_Wiki


Jan 2018


**Simple model of active particles**

- Jul 2018

Stewart Blusson Quantum Matter Institute,  
University of British Columbia 

**Supervisor:** Jörg Rottler


**code:**  yketa/active\_particles

**Wiki:**  yketa/UBC\_2018\_Wiki


May 2017


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

- Jul 2017

Institutionen för fysik, Umeå universitet 

**Supervisor:** Peter Olsson


**code:**  yketa/shear\_ellipsoids

**Wiki:**  yketa/Umea\_2017\_Wiki

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

Y.-E. Keta, É. Fodor, F. van Wijland, M. E. Cates, and R. L. Jack, “Collective motion in large deviations of active particles”, (2020).  arXiv:2009.07112

Y.-E. Keta and P. Olsson, “Translational and rotational velocities in shear-driven jamming of ellipsoidal particles”, (2020).  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 **Oral interrogator**

2016/17 Lycée du Parc, Institution des Chartreux, Lycée La Martinière Diderot (Lyon) 