

# YANN-EDWIN KETA

Graduate research student



November 24<sup>th</sup>, 1995




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yketa

## Education


### MSc. in Physics

École normale supérieure de Lyon   
Specialisation in computational physics,  
soft matter and statistical physics.

### BSc. in Physics

École normale supérieure de Lyon 

### Classes préparatoires aux grandes écoles (PCSI/PC\*)

Lycée Lakanal, Sceaux 

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

## Skills

### Programming




Python

Bash •  $\text{\LaTeX}$  • Matlab


C • Mathematica


0 years —————> 5 years experience

### Operating systems

Mac OS X  • Linux  • Windows 

### Languages

 Français – Native speaker

 English – Fluent

## Interests

\* Involvement in the École normale  
supérieure de Lyon's associations

\* Physics outreach

\* Extreme music


\* Amateur guitar playing

## Research

Jan 2018 -

Jul 2018

### Simple model of active particles

Stewart Blusson Quantum Matter Institute, The University of  
British Columbia 



**Supervisor:** Joerg Rottler

- Analysis of a model system of polydisperse active Brownian disks with purely repulsive interparticle harmonic potential.
- Implementation of the model in Python with the HOOMD-blue simulation toolkit.
- Characterisation of the motility-induced phase separation and of the long-range correlated particles' motion.


**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

- Modification of an already existing 2D circular frictionless granular particles dynamics C program in order to study 3D spheroidal frictionless particles.
- Exploitation of the numerical data in order to compare our results to the existing literature and identify unexpected and/or surprising phenomena.

**code:**  yketa/shear\_ellipsoids **Notes:**  yketa/Umea\_2017\_Notes

Jun 2016 -

Jul 2016

### Leidenfrost drop impacts on surfaces with micrometric defects

Institut Lumière Matière, Université Claude Bernard Lyon 1 



**Supervisor:** Quentin Ehlinger, Christophe Ybert

- Set-up and realisation of an experiment of drop fall on a superheated surface.
- Development of numerical methods in Python and Matlab to compare our models to our experimental results.

## Publications


(preprint) Theodore Marschall, Yann-Edwin Keta, Peter Olsson, S. Teitel, Orientational Ordering in Athermally Sheared, Aspherical, Frictionless Particles, arXiv:1806.01739

## Teaching

Sep 2016 -

Mar 2017

### Oral interrogator


Lycée du Parc, Lyon 

Weekly physics and chemistry oral interrogator in 2nd-year *classes préparatoires aux grandes écoles* (undergraduate level).

2015 -

2017

### Volunteer tutor

ENSeigner association, École normale supérieure de Lyon 

- Tutoring in physics, chemistry and mathematics for high school students of Lyon.
- Participation to the operation "Révisé ton bac à la BmL" to help students preparing for the *baccalauréat* (French high school diploma).