YANN-EDWIN KETA

Graduate research student

November 24th, 1995

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github.com/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 59th in the École normale supérieure de Lyon entrance exam.

Skills

Programming

Python

Bash • 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

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

Supervisors: 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 "Révise ton bac à la BmL" to help students preparing for the *baccalauréat* (French high school diploma).