YIWEI ZHANG

10a Rue du Swing, Belval 4367, Luxembourg
(+352)6 61 66 11 28 ⋄ yiweizhang1025@gmail.com

EDUCATION

University of Luxembourg *2020-2023(expected)*
Doctoral Researcher in Physics

DAMTP, Cambridge University *07.2020-10.2020*
Visiting Student

ICFP, ENS Paris *2019 - 2020*
Master II in Physics

ENS Paris *2018 - 2019*
Master I in Chemistry

ENS Paris *2017 - 2020*
Diplome de l'ENS

Xiamen University *2013 - 2017*
B.Sc in Chemistry

ACADEMIC EXPERIENCE

Synthesis and reactivity studies on FLP compounds Supervisor: Prof. Hongping Zhu at Xiamen University
Organometallic synthesis of Ge-B FLP compounds and reactivity probes with S, Se, Te, etc.

Theoretical studies on the reorientation dynamics of water molecules in charged interfaces Supervisor: Prof. Damien Laage at ENS Paris
Using trajectory data from classical molecular dynamic simulation to study the influence of interfacial potential on water dynamics and electric field distribution in a cell.

Deep learning interpretability Supervisor: Dr. Maria Rodriguez Martinez at IBM Research Zurich
Studied the state of the art of deep learning interpretability methods, with corresponding hands-on experiences of those methods and application to DeepBind, a deep learning model prediction protein-binding DNA sites.

Stochastic Thermodynamics of active matter systems Supervisor: Dr. Étienne Fodor
By means of stochastic processes, including SDE and numerical modelling, the non-equilibrium behaviours of acive matter systems are investigated. Currently, I study the density wave formation in self-driven deformable particle systems.

TECHNICAL STRENGTHS

Programming C, Fortran, Python, Julia, Shell
Software & Tools MS Office, LaTeX
Analytical Computation
Knowledge about PDEs and their numerical treatment

LANGUAGES

Mandarin, Mother tongue

English, C2

French, B2

German, B2

PUBLICATIONS

[1] "Advances for the Ruthenium Complexes-Based Homogeneous Catalytic Hydrogenation of Oxalates to Ethylene Glycol". In: *Chinese Journal of Organic Chemistry* 37.9, 2275 (2017), p. 2275. DOI: 10.6023/cjoc201703021. URL: http://sioc-journal.cn/Jwk_yjhx/EN/abstract/article_346097.shtml.

[2] Yiwei Zhang et al. "Water dynamics at electrified graphene interfaces: a jump model perspective". In: *Phys. Chem. Chem. Phys.* 22 (19 2020), pp. 10581–10591. DOI: 10.1039/D0CP00359J. URL: http://dx.doi.org/10.1039/D0CP00359J.

[3] Yiwei Zhang et al. "Water Structure, Dynamics, and Sum-Frequency Generation Spectra at Electrified Graphene Interfaces". In: *The Journal of Physical Chemistry Letters* 11.3 (2020), pp. 624–631. DOI: 10.1021/acs.jpclett.9b02924.