YIWEI ZHANG

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EDUCATION

ICFP, ENS Paris *2019 - Present*
Master II in Physics
Courses: Statistical physics, Physics of fluids, Soft matter physics, Nonlinear physics and morphogenesis, Statistical Field theory, Numerical physics, Conformal Field theory, Introduction to ADS/CFT, Differential Geometry and gauge theories, QFT II, String Theory

ENS Paris *2018 - 2019*
Master I in Chemistry
Courses: Statistical mechanics in chemistry, Electronic structure, NMR, MRI, etc.

ENS Paris *2017 - Present*
Courses: Analytical mechanics, Statistical mechanics, Quantum mechanics, Quantum Chemistry, Introduction to QFT, General relativity, Advanced maths for physicists, Nonlinear PDE, etc.
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.

TECHNICAL STRENGTHS

Programming	C, Fortran, Python, Julia, Shell
Software & Tools	MS Office, LaTeX
Analytical Computation	

LANGUAGES

Mandarin, Mother tongue

English, C1

French, B1

German, B1

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.