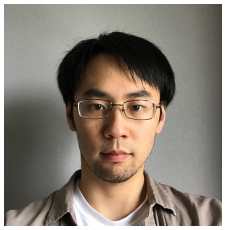

Jusong Yu

Curriculum Vitae

Personal Information

Date of birth:	Zhejiang, China | August 26, 1992
Nationality:	Chinese
Languages:	English(Fluent), Chinese(Mother tongue), German(A2)
email:	jusong.d.yu@gmail.com

Tech stacks

Programming Languages	Python, Rust, Julia, C++
Dev tools	Docker, Kubernetes, Git, neovim
Operating system	Linux, Mac OS

Projects

(3) Lead and coordinate AiiDAlab development(a web tool for complex computational simulation accessible.) **2022-2024**

(1) Mentoring the Google Summer of Code student on the AiiDA project about the ranking system for AiiDA plugin registry **May-Sept 2023**

(2) The MARKETPLACE project funded by EU Horizon 2020 Contributing to the Project and leading the development of T4.9: HPC integration as a service for the platform **Sept. 2021-2023**

(4) Author of aiida-sssp-workflow and aiidalab-sssp for solid state pseudopotential verification. **Sept. 2021-Now**

(6) **Libxc.jl**: a Julia binding to the libxc library for exchange-correlation functionals.**Sept. 2019**

Talks

Aug. 2022 **Psi-k conference 2022**, *SwissTech Convention Center, EPFL, Lausanne (Switzerland)*

Contributed talk: Making complex scientific workflows accessible and shareable with AiiDAlab - pseudopotentials and electronic-structure simulations on demand

Jun. 2022 **Open Databases Integration for Materials Design (OPTIMADE) workshop at CECAM**, *CECAM, EPFL, Lausanne (Switzerland)*

Presenting on workshop for new development of integrating Materials Cloud databases with OPITMADE

Peer-reviewed Publications

(1) Bosoni Emanuele, ... **Jusong Yu**, et al. and Giovanni Pizzi. "How to verify the precision of density-functional-theory implementations via reproducible and universal workflows." *Nature Reviews Physics* **2023** DOI:10.1038/s42254-023-00655-3

Contribution: Generated and tested new pseudopotentials used for Quantum ESPRESSO.

(2) Uhrin Martin, Sebastiaan P. Huber, **Jusong Yu**, Nicola Marzari, and Giovanni Pizzi. "Workflows in AiiDA: Engineering of a high-throughput, event-based engine for robust and modular computational workflows." *Computational Materials Science* **2021** DOI:10.1016/j.commatsci.2020.110086

Contribution: Refactored the engine code to be compatible with asyncio

(3) **Jusong Yu**, Jihai Liao, Yujun Zhao, Yinchang Zhao, and Xiaobao Yang. "Motif Based High-Throughput Structure Prediction Of Superconducting Monolayer Titanium Boride". *Physical Chemistry Chemical Physics* **2020** DOI:10.1039/d0cp01540g.

Contribution: Propose a motif-based way to generate many different configurations of monolayer titanium boride (prove to be more efficient than genetic algorithm in finding stable structures with particular structural pattern), then discussing the stability of configurations and simulating the superconducting properties two specific structures.

Education and job experiences

2023-Now Postdoctoral researcher in Computational Material Science,
Paul Scherrer Institut (PSI)

2021-2023 Postdoctoral researcher in Computational Material Science,
École Polytechnique Fédérale de Lausanne (EPFL)

2017-2021 Ph.D. Studies in Physics,
South China University of Technology

2014-2017 Graduate Studies in Physics,
Chinese Academy of Sciences

2010-2014 Undergraduate Studies in Polymer Science,
Northwestern Polytechnical University,

Interests and Extracurricular Activities

Swimming, Board game, Violin, Literature.