

Yu HE

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Education

Beihang University

PhD student in Electronic Science and Technology

Beijing, China

Sept 2023 - Current

- **Supervisors:** A.P. Guang Yang and Prof. Jason W.A. Robinson
- **Courses:** -

Beihang University

M.E. in Electronic Science and Technology

Beijing, China

Sept 2021 - Sept 2023

- **Supervisors:** Prof. Haiming Yu and A.P. Guang Yang
- **Courses:** Matrix Theory, Introduction To Solid State Physics, Modern Semiconductor Device Physics, Theory of Magnetism, Magnetic Property Measurement Technologies, Introduction To Micro-Nano Fabrication Technology

Northwestern Polytechnical University

B.E. in Electronics and Information Engineering

Xi'an, China

Sept 2017 - July 2021

- **Supervisors:** Prof. Ping Kwan Johnny Wong
- Won the Outstanding Student Scholarship of the School of Electronics and Information of Northwestern Polytechnical University in 2019-2020 academic year

Work Experience

Enflame Tech

Digital IC Design Engineer (intern)

Beijing, China

July 2022 - March 2023

- Collaborated with the Processor IP team to develop and maintain relevant IPs within the Hardware Sector framework.
- **Featured Projects:** Address Hash for Share Memory, Performance Monitor
- **Technical Skills:** SystemVerilog, Python, C++, Ruby, Linux tools, Git.

Research Projects

Molecular Regulation of Two-dimensional Ferromagnetic Crystals

Northwestern Polytechnical University

Chongqing, China

April 2021 - July 2021

- Chongqing Natural Science Foundation (General Program)
- **Supervisors:** Prof. Ping Kwan Johnny Wong and Prof. Wen Zhang

First-principles Prediction of the Half-metallicity in Quaternary Heusler CoRhCrAl Thin Films

Northwestern Polytechnical University

Xi'an, China

Oct 2020 - June 2021

- A first-principles study of the structural, electronic and magnetic properties of the pristine bulk CoRhCrAl quaternary Heusler alloy and its (111), (001) and (110)-oriented thin films were performed by using VASP based on the density functional theory.
- **Supervisor:** Prof. Ping Kwan Johnny Wong; under the direct guidance of Dr. Iltaf Muhammad.

Skills

Programming Python, C/C++, Matlab.

Miscellaneous Linux, Shell (Bash/Zsh), \LaTeX (Overleaf/VS Code), Origin, Cryogenic Measurements.

Publications

JOURNAL ARTICLES

First-principles prediction of the half-metallicity in quaternary Heusler CoRhCrAl thin films

Iltaf Muhammad, Yu He, Anwar Ali, Wen Zhang, Ping Kwan Johnny Wong

Physica Scripta 97.7 (June 2022) p. 075812. IOP Publishing, 2022

CONFERENCE PROCEEDINGS

Yu He, Iltaf Muhammad, Wen Zhang, Ping Kwan Johnny Wong. *First-principles Prediction of the Half-metallicity in Quaternary Heusler CoRhCrAl Thin Films*. The 2021 Around-the-Clock Around-the-Globe Magnetism Conference. 2021.

Languages

English Professional proficiency

Chinese Native proficiency