Yu HE

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Education

Beihang University   *Beijing, China*

PhD student in Electronic Science and Technology   *Sept 2023 - Current*

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

Beihang University   *Beijing, China*

M.E. in Electronic Science and Technology   *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   *Xi'an, China*

B.E. in Electronics and Information Engineering   *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   *Beijing, China*

Digital IC Design Engineer (intern)   *July 2022 - March 2023*

- **Supervisors: Jin Li**
- 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

First-principles Pridiction of the Half-metallicity in Quaternary Heusler CoRhCrAl Thin Films   *Xi'an, China*

Northwestern Polytechnical University   *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

Spin-Related Superconducting Devices for Logic and Memory Applications
  Yu He, Jiaxu Li, Qiusha Wang, Hisakazu Matsuki, Guang Yang
  ADVANCED DEVICES & INSTRUMENTATION 4.0035 (Dec. 2023). 2023

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 Magnetics Conference. 2021.

Languages

English Professional proficiency
Chinese Native proficiency