Kirby Hermansen
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EDUCATION

Michigan State University   East Lansing, MI
Ph.D in Physics; Grad. Cert. in High-Performance Computing   Exp. Summer 2022
Tentative Thesis: Total Absorption Spectroscopy of A=57 Neutron-rich Nuclei

University of Notre Dame   Notre Dame, IN
B.S. in Physics, Economics   May 2015

RESEARCH EXPERIENCE

National Superconducting Cyclotron Laboratory (NSCL/FRIB)   East Lansing, MI
2017–   *Research Assistant*   PI: Hendrik Schatz
- Analyze experimental data to constrain beta-decay transitions in select neutron-rich nuclei
- First author on a sensitivity study of nuclear reaction rates in core-collapse supernovae
- Contributed to 7 NSF-funded experiments and ongoing detector systems commissioning
- Lead guided public tours of the cyclotron facility

2019–   *Contributing Member, Nuclear Policy Working Group*
- Follow and discuss ongoing developments in U.S. nuclear policy and treaties
- Research the technical details of nuclear weapons and reactors
- Evaluate the importance of nuclear energy in environmental policy

2017–2018   *Teaching Assistant*
- Taught 2 semesters of undergraduate physics laboratory

European Organization for Nuclear Research (CERN)   Geneva, Switzerland
2014   *Research Assistant*
- Analyzed lifetime ratios and kinematic variables to better determine B-meson lifetimes
- Developed elements of the ROOT/R interface library, later distributed in ROOT

Nuclear Science Laboratory (NSL)   Notre Dame, IN
2013–2015   *Research Assistant*
- Created a process for radiocarbon dating using accelerator mass spectrometry

PROFESSIONAL EXPERIENCE

Travelers Insurance Fixed Income Investments   Saint Paul, MN
2015–2017   *Senior Associate Quantitative Analyst*
- Assessed return attribution on a $30 billion municipal bond portfolio
- Modeled asset/liability matching to minimize portfolio systematic and curve risk

SKILLS

Computer: Excel, Word, PowerPoint, SharePoint, LaTeX, Linux, Access
Programming: *Proficient*: ROOT, Python, C++, VBA; *Familiar*: Node.js, JavaScript, SQL, R
Language: *Basic*: French, Spanish