Sarah Skinner

Graduate Student

xinucode.github.io xinucode sarah-skinner-916038156 Google Scholar(qrd.by/sss)

Education

Carnegie Mellon University (CMU) 3.8/4.3

Ph.D. in Physics *Aug 2020 - Aug 2024*

Missouri University of Science and Technology (Missouri S&T) 3.9/4.0

B.S. Physics, *Minors in Computer Science, Mathematics* *June 2016 - Dec 2019*

Publications

[1] J. Bulava, A. D. Hanlon, B. Hörz, C. Morningstar, A. Nicholson, F. Romero-López, **S. Skinner**, P. Vranas, and A. Walker-Loud, *Elastic nucleon-pion scattering at m=200 mev from lattice qcd*, *Nuclear Physics B* **987** (2023) 116105.

[2] T. Vojta, S. Halladay, **S. Skinner**, S. Janušonis, T. Guggenberger, and R. Metzler, *Reflected fractional brownian motion in one and higher dimensions*, *Phys. Rev. E* **102** (Sep, 2020) 032108.

[3] T. Vojta, **S. Skinner**, and R. Metzler, *Probability density of the fractional langevin equation with reflecting walls*, *Phys. Rev. E* **100** (Oct, 2019) 042142.

[4] A. Nicola, D. Alonso, J. Sánchez, A. Slosar, H. Awan, A. Broussard, J. Dunkley, E. Gawiser, Z. Gomes, R. Mandelbaum, H. Miyatake, J. A. Newman, I. Sevilla-Noarbe, **S. Skinner**, and E. L. Wagoner, *Tomographic galaxy clustering with the subaru hyper suprime-cam first year public data release*, *Journal of Cosmology and Astroparticle Physics* **2020** (mar, 2020) 044.

Research Projects

Calculating Resonance Information from Lattice QCD (CMU) Pittsburgh, PA

Advisor: *Dr. Colin Morningstar*. Investigation into how resonances impact the scattering of hadrons. *Jan 2021 - Present*

Analysis on GlueX Data (CMU) Pittsburgh, PA

Advisor: *Dr. Curtis Meyer*. Isolated scattering channels in Gluex detector data. *Aug 2020 - Dec 2020*

Scalability Improvement of Plasma Simulation (NASA Glenn) Cleveland, OH

Advisor: *Dr. Maria Choi*. Improved methods within a hybrid fluid/Monte Carlo plasma simulation in confined geometries to predict physics in an ion thruster. *Jan 2020 - May 2020*

Anomalous Diffusion in Confined Geometries (Missouri S&T) Rolla, MO

Advisor: *Dr. Thomas Vojta*. Modeled anomalous diffusion determined by the fractional Langevin equation using Monte Carlo methods. *Jan 2018 - Dec 2019*

Errors in Dark Matter Halos Fit Model (Brookhaven National Laboratories) Upton, NY

Advisor: *Dr. AnÅ¿e Slosar*. Inserted error into dark matter fit model to assess its significance. *Jun 2019 - Aug 2019*

Binary Black Hole Model (Louisiana State University) Baton Rouge, LA

Advisor: *Dr. Peter Diener*. Added rotation parameter for smaller black hole in binary system with a high mass difference. *May 2018 - Jul 2018*

Computer Skills

C++	Python	LaTeX	Fortran	Mathematica
MPI	OpenMP	Linux	Windows	Microsoft Office

Conferences and Workshops

Lattice Conference 2023 Fermilab, IL, August 2023

National Nuclear Physics Summer School Riverside, CA, July 2023

American Physical Society Topical Group on Hadronic Physics Meeting Minneapolis, MI, April 2023

International HPC Summer School on Challenges in Computational Sciences Athens, Greece, June 2022

Hampton University Graduate Studies (HUGS) Program (Jefferson Lab) Newport News, VA, June 2022

American Physical Society March Meeting Boston, MA, Mar 2019