

Scott Perkins

Curriculum Vitae

257 Loomis Laboratory - University of Illinois at Urbana-Champaign
Urbana IL 61801
USA

✉ scottep3@illinois.edu
📄 scottperkins.github.io

EDUCATION

- 2019–2022 **Ph.D.**, *University of Illinois at Urbana-Champaign*, Urbana IL, 4.0/4.0.
Thesis Advisor: Dr. Nicolás Yunes
- 2017–2019 **M.Sc.**, *Montana State University*, Bozeman MT, 3.84/4.0.
- 2013–2017 **B.S.**, *Texas A&M University*, College Station TX, 3.97/4.0.

RESEARCH INTERESTS

- Fundamental Physics
 - Estimations of future constraints on extensions to GR through synthetic simulations of sources
 - Current constraints on modified theories of gravity through LIGO/Virgo data
- Gravitational Wave Modeling
 - Modeling gravitational waves from eccentric binaries

EXPERIENCE

Academic Research

- 2019– **Graduate Research Assistant**, *University of Illinois at Urbana-Champaign*.
Alternating semesters
Advisor: Dr. Nicolás Yunes
- 2017–2019 **Graduate Research Assistant**, *Montana State University*.
Alternating semesters
Advisor: Dr. Nicolás Yunes
- 2015–2017 **Undergraduate Research Assistant**, *Texas A&M University*.
Advisor: Dr. Casey Papovich

Teaching

- 2020– **Graduate Teaching Assistant**, *University of Illinois at Urbana-Champaign*.
Alternating semesters
 - General Relativity I (Graduate)
- 2017–2019 **Graduate Teaching Assistant**, *Montana State University*.
Alternating semesters
 - Calculus-based Classical Mechanics (Undergraduate)
 - Modern Physics (Undergraduate)
 - Solar System Astronomy (Undergraduate)

REFEREED JOURNAL PUBLICATIONS

1. Remya Nair, Scott Perkins, Hector O. Silva, and Nicolás Yunes. Fundamental physics implications for higher-curvature theories from binary black hole signals in the ligo-virgo catalog gwtc-1. *Phys. Rev. Lett.*,

123:191101, Nov 2019

2. Scott Ellis Perkins and Nicolas Yunes. Probing screening and the graviton mass with gravitational waves. *Classical and Quantum Gravity*, 2019

WORKS SUBMITTED FOR REVIEW

1. Scott E. Perkins, Nicolás Yunes, and Emanuele Berti. Probing Fundamental Physics with Gravitational Waves: The Next Generation. 10 2020

CONFERENCE TALKS

1. Scott Perkins. Fundamental physics panelist. First Cosmic Explorer Meeting, 2020
2. Scott Perkins. Probing screening and the graviton mass with gravitational waves. April APS, 2019

TECHNICAL SKILLS

Programming ◦ Proficient: Python, C++/C
Languages ◦ Familiar: CUDA, Java, HTML, CSS

Auxiliary ◦ Proficient: Mathematica, Latex, Linux, MacOS, OpenMP
Software and ◦ Familiar: Windows
Operating
Systems

AWARDS AND ACHIEVEMENTS

- 2019 **Graduate Research Fellowship**, *University of Illinois at Urbana-Champaign*.
- 2017 **Graduate Meritorious Award**, *Montana State University*.
- 2017 **Faculty's Student Achievement Award**, *Texas A&M University*.
- 2017 **Randall C. Shepard Award in Astrophysics**, *Texas A&M University*.
- 2013–2017 **President's Endowed Scholarship**, *Texas A&M University*.
- 2013–2017 **Rose Lafferty Scholarship**, *St. Andrew's Episcopal Church*.
- 2013 **National Merit Finalist**, *Texas A&M University*.
- 2012 **Eagle Scout**, *Boy Scouts of America*.

MEMBERSHIPS

- 2020– **Cosmic Explorer Consortium**, *Member*.
- 2019– **LISA Consortium**, *Associate Member*.
- 2018– **American Physical Society**, *Member*.
- 2018–2019 **eXtreme Gravity Institute (XGI) at Montana State**, *Member*.

OUTREACH ACTIVITIES

- 2019 **Peaks and Potentials Youth Camp Course Intstructor**, *Montana State University*.
- 2018–2019 **XGI Outreach Volunteer**, *Montana State University*.
- 2015–2016 **Physics Festival Volunteer**, *Texas A&M University*.