# Scott Perkins

*Curriculum Vitae*

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

### Adademic 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. Probing screening and the graviton mass with gravitational waves. April APS, 2019

## TECHNICAL SKILLS

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|---|---|
| Programming Languages | ○ Proficient: Python, C++/C<br>○ Familiar: CUDA, Java, HTML, CSS |
| Auxiliary Software and Operating Systems | ○ Proficient: Mathematica, Latex, Linux, MacOS, OpenMP<br>○ Familiar: Windows |

## 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

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*.