

Justin C. Feng

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Research Interests

General Relativity • Numerical Relativity • Quantum Gravity • Field Theory

Education

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| The University of Texas at Austin | AUSTIN, TEXAS |
| Doctor of Philosophy in Physics | 2009 – 2017 |
| Advisor: Richard A. Matzner | |
| The University of California, Irvine | IRVINE, CALIFORNIA |
| Bachelor of Science in Physics with a minor in Mathematics (2009) | 2004 – 2009 |
| Honors: <i>Sigma Pi Sigma</i> | |

Appointments Held

Assistant Instructor (2011-2017)
The University of Texas at Austin

Graduate Research Assistant (Summers 2016, 2017)
The University of Texas at Austin

Teaching Assistant (2009-2011, Spr. 2015)
The University of Texas at Austin

Undergraduate Research Assistant (Summers 2007, 2008)
University of California, Irvine

Conferences and Talks

Conferences, Workshops, and Schools

- Participant: SIGRAV Graduate School, XI Edition, Gravity and the Quantum, June 2014, Como, Italy.
- Participant: 27th Texas Symposium on Relativistic Astrophysics, December 2013, Dallas, TX.
- Presenter: 7th Gulf Coast Gravity Meeting, April 2013, University of Mississippi, Oxford MS., Title: *Rigid Surfaces in General Relativity*
- Participant: 6th Gulf Coast Gravity Meeting, May 2011, Florida Atlantic University, Boca Raton, FL.
- Participant: Experimental Search for Quantum Gravity Workshop, July 2010, NORDITA, Stockholm, Sweden
- Poster: APS April Meeting, Denver, CO (2009). Title: *Modeling Inflation with CMB and 21 cm Anisotropy Measurements*

Seminars and Public Talks

- Seminar Talk: Okinawa Institute for Science and Technology, *Temporal Insights from the End of Space* (Given November 14th, 2017)
 - PhD Defense: *Temporal Insights from the End of Space* (Given August 15th, 2017)
 - Participant: Whizkey Seminar (2011-2015)
 - Participant: Differential Geometry Seminar, led by Prof. Larry Shepley, Summer 2011
 - Public Qualifier Talk: *Variations of Area in Geometrodynamics* (Given November 17th, 2011)
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Publications and Works

Articles

- [1] Ignazio Ciufolini, Richard A. Matzner, Justin C. Feng, David P. Rubincam, Erricos C. Pavlis, Giampiero Sindoni, Antonio Paolozzi, and Claudio Paris. A new laser-ranged satellite for General Relativity and Space Geodesy IV. Thermal drag and the LARES 2 space experiment, 2018. (*In preparation*).
- [2] J. Feng, M. Baumann, B. Hall, J. Doss, and L. Spencer. PoMiN: A Post-Minkowskian N-Body Solver, 2018. (*Submitted to ApJ*).
- [3] J. C. Feng. A Volume Average Regularization for the Wheeler-DeWitt Equation. arXiv 1802.08576, February 2018. (*Submitted to PRD*).
- [4] J. C. Feng and R. A. Matzner. The Weiss Variation of the Gravitational Action. arXiv 1708.04489, August 2017. (*Submitted to GRG*).
- [5] Justin C. Feng and Richard A. Matzner. From path integrals to the Wheeler-DeWitt equation: Time evolution in spacetimes with a spatial boundary. *Phys. Rev. D*, 96:106005, Nov 2017.

Dissertation

Feng, Justin C., *Temporal Insights from the End of Space* (2017)

Notes

Feng, J. C., *The Poor Man's Introduction to Tensors*, 40 pages (2017)
(http://ph.utexas.edu/~jcfeng/notes/Tensors_Poor_Man.pdf)
