

# Justin C. Feng

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## Research Interests

General Relativity • Numerical Relativity • Quantum Gravity • Field Theory

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## Education

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: Sigma Pi Sigma*

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## 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**

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## Conferences and Talks

### Conferences, Workshops, and Schools

- Participant: SIGRAV Graduate School, XI Edition, Gravity and the Quantum, June 2014, Como, Italy.
- Participant: 27 th Texas Symposium on Relativistic Astrophysics, December 2013, Dallas, TX.
- Presenter: 7 th Gulf Coast Gravity Meeting, April 2013, University of Mississippi, Oxford MS., Title: *Rigid Surfaces in General Relativity*
- Participant: 6 th 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)
  - 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](http://ph.utexas.edu/~jcfeng/notes/Tensors_Poor_Man.pdf))

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