

# Justin C. Feng

## Curriculum Vitae

Instituto Superior Técnico  
Departamento de Física / CENTRA  
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## Education

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

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## Appointments Held

Postdoctoral Researcher (Current)  
**Instituto Superior Técnico**  
Adjunct Faculty (Fall 2018)  
**St. Edward's University**  
Research Affiliate Postdoctoral Scholar (2017-2018)  
**Weinberg Theory Group, The University of Texas at Austin**  
Assistant Instructor (2011-2017)  
**The University of Texas at Austin**  
Graduate Research Assistant (Summers 2016, 2017)  
**Weinberg Theory Group, The University of Texas at Austin**  
Teaching Assistant (2009-2011, Spring 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)
- 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] Chinmoy Bhattacharjee, Justin C. Feng, and S. M. Mahajan. Black hole in a superconducting plasma. *Phys. Rev. D*, 99:024027, Jan 2019.
- [2] Justin C. Feng. Some globally conserved currents from generalized Killing vectors and scalar test fields. *Phys. Rev. D*, 98:104035, Nov 2018.
- [3] Chinmoy Bhattacharjee, Justin C Feng, and David J Stark. Surveying the implications of generalized vortical dynamics in curved spacetime. *Monthly Notices of the Royal Astronomical Society*, page sty2277, 2018.
- [4] Ignazio Ciufolini, Richard A. Matzner, Justin C. Feng, Antonio Paolozzi, David P. Rubincam, Erricos C. Pavlis, John C. Ries, Giampiero Sindoni, and Claudio Paris. A new laser-ranged satellite for General Relativity and space geodesy: IV. Thermal drag and the LARES 2 space experiment. *The European Physical Journal Plus*, 133(8):333, Aug 2018.
- [5] Justin C. Feng. Volume average regularization for the Wheeler-DeWitt equation. *Phys. Rev. D*, 98:026024, Jul 2018.
- [6] Justin Feng, Mark Baumann, Bryton Hall, Joel Doss, Lucas Spencer, and Richard Matzner. PoMiN: A Post-Minkowskian N-body Solver. *The Astrophysical Journal*, 859(2):130, 2018.
- [7] 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.
- [8] Justin C. Feng and Richard A. Matzner. The Weiss variation of the gravitational action. *General Relativity and Gravitation*, 50(8):99, Jul 2018.

### 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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