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Education

Ph.D., Purdue University, 2009.

M.S. Mechanical Engineering, Texas Tech University, 2004.

B.S. Mechanical Engineering, *Cum Laude*, Texas Tech University, 2002.

Professional Appointments

Assistant Professor, Department of Petroleum and Geosystems Engineering,
The University of Texas at Austin,
August 2014–Present.

Assistant Professor (by courtesy), Department of Aerospace Engineering
and Engineering Mechanics,
The University of Texas at Austin,
January 2014–Present.

Affiliated Faculty, Institute for Computational Engineering and Sciences,
The University of Texas at Austin,
December 2014–Present.

Assistant Professor, Department of Mechanical Engineering,
The University of Texas at San Antonio,
August 2011–August 2014.

Senior Member of the Technical Staff, Terminal Ballistics Technology Department,
Sandia National Laboratories
January 2006–August 2011.

Member of the Technical Staff, Terminal Ballistics Technology Department,
Sandia National Laboratories
August 2004–January 2006.

Awards & Honors

2015 SPE Petroleum Engineering Innovative Teaching Award

2013 Air Force Office of Scientific Research Young Investigator Award

2013 '40 Under 40' - San Antonio Business Journal

Professional Registration

Professional Engineer, Texas, #118233

Refereed Journal Articles

Published

5. **J.T. Foster**. A variationally consistent approach to constrained motion. *ASME. J. Appl. Mech.*, 83(5), May 2016. doi:10.1115/1.4032856.

4. H. Ouchi, J.R. York, A. Katiyar, **J.T. Foster**, and M.M. Sharma. A fully coupled porous flow and geomechanics model for fluid driven cracks: a peridynamics approach. *Computational Mechanics*, 55(3):561–576, March 2015. doi:10.1007/s00466-015-1123-8.

3. J. O'Grady and **J.T. Foster**. Peridynamic plates and flat shells: A non-ordinary state-based model. *International Journal of Solids and Structures*, 51(25–26):4572–4579, 2014. doi:10.1016/j.ijsolstr.2014.09.003.

2. M. Bessa, **J.T. Foster**, T. Belytschko, and W.K. Liu. A meshfree unification: Reproducing kernel peridynamics. *Computational Mechanics*, 53(6):1251–1264, 2014. doi:10.1007/s00466-013-0969-x.

1. A. Katiyar, **J.T. Foster**, H. Ouchi, and M.M. Sharma. A peridynamic formulation of pressure driven convective fluid transport in porous media. *Journal of Computational Physics*, 261:209–229, March 2014. doi:10.1016/j.jcp.2013.12.039.

Books Edited

In press

1. F. Bobaru, **J.T. Foster**, P. Guebelle, and S.A. Silling, editors. *The Handbook of Peridynamics*. Taylor & Francis/CRC Press, 2016

Book Chapters

In press

1. **J.T. Foster**. *The Handbook of Peridynamics*, chapter Constitutive Modeling in Peridynamics. Taylor & Francis/CRC Press, 2016