Kirubel Teferra, PhD, PE

Naval Research Laboratory
Multifunctional Materials Branch, Code 6353
4555 Overlook Ave SW
Washington, DC 20003

kirubel.teferra@nrl.navy.mil
(202) 767- 3505

Education

Doctor of Philosophy 8 Feb 2012
Columbia University, New York, NY
Master of Science 20 May 2005
University of California, Berkeley, CA
Department of Civil and Environmental Engineering
Bachelor of Science 19 May 2004
Columbia University, New York, NY
Department of Civil Engineering and Engineering Mechanics

Professional Experience

U.S. Naval Research Laboratory, Washington, DC September 2015 –present
Material Science & Technology Division, Multifunctional Materials Branch (Mechanical Engineer)

Johns Hopkins University, Baltimore, MD November 2013- September 2015
Dept. of Civil Engineering, (Postdoctoral Research Associate)

Weidlinger Associates, Inc., New York, NY August 2011 –November 2013
Applied Science Division (Research Engineer)

Journal Publications

9. <u>Kirubel Teferra</u>, X. Gary Tan, Athanasios Iliopoulos, John Michopoulos, and Siddiq Qidwai. Effect of human head morphological variability on the mechanical response modeling of blast overpressure loading. *International Journal for Numerical Methods in Biomedical Engineering, under review*

8. <u>Kirubel Teferra</u> and Lori Graham-Brady. A random field-based method to estimate convergence of apparent properties in computational homogenization. *Computer Methods in Applied Mechanics and Engineering, under review*

7. Sanjay R Arwade, George Deodatis, and <u>Kirubel Teferra</u>. Variability response functions for apparent material properties. *Probabilistic Engineering Mechanics*, 44:28–34, 2016

6. Michael D Shields, <u>Kirubel Teferra</u>, Adam Hapij, and Raymond P Daddazio. Refined stratified sampling for efficient monte carlo based uncertainty quantification. *Reliability Engineering & System Safety*, 142:310–325, 2015

5. <u>Kirubel Teferra</u> and Lori Graham-Brady. Tessellation growth models for polycrystalline microstructures. *Computational Materials Science*, 102:57–67, 2015

4. <u>Kirubel Teferra</u>, Michael D Shields, Adam Hapij, and Raymond P Daddazio. Mapping model validation metrics to subject matter expert scores for model adequacy assessment. *Reliability Engineering & System Safety*, 132:9–19, 2014

3. <u>Kirubel Teferra</u>, Sanjay R Arwade, and George Deodatis. Generalized variability response functions for two-dimensional elasticity problems. *Computer Methods in Applied Mechanics and Engineering*, 272:121–137, 2014

2. <u>Kirubel Teferra</u>, Sanjay R Arwade, and George Deodatis. Stochastic variability of effective properties via the generalized variability response function. *Computers & Structures*, 110:107–115, 2012

1. <u>Kirubel Teferra</u> and George Deodatis. Variability response functions for beams with nonlinear constitutive laws. *Probabilistic Engineering Mechanics*, 29:139–148, 2012