

Erin M. Kiley: Résumé



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- CURRENT POSITION** ◇ **Assistant Professor**, Department of Mathematics, Massachusetts College of Liberal Arts (North Adams, MA, USA), September 2016 – Present.
- EDUCATION** ◇ **Worcester Polytechnic Institute**, Worcester, Massachusetts, USA
Ph.D. Candidate, Mathematical Sciences, May 2016 (Expected graduation). Thesis title: Comprehensive Mathematical and Computer Modeling of Microwave Sintering, including Electromagnetic, Thermal, and Mechanical Phenomena.
- ◇ **Worcester Polytechnic Institute**, Worcester, Massachusetts, USA
M.Sc., Applied Mathematics, May 2011. Thesis title: A Computational Approach to Determining the Intrinsic Impedance of Perforated Metal Sheets.
- ◇ **University of New Hampshire**, Durham, New Hampshire, USA
B.Sc., Mathematics and Statistics, September 2008
B.A., Russian Language, September 2008
- FELLOWSHIPS** ◇ **Chateaubriand Fellowship** (Autumn 2015 – Spring 2016) Grenoble, France.
- ✂ **GRANTS** ◇ **National Science Foundation Graduate Research Fellowship** (Aut 2010 – Spring 2014) Worcester, MA.
- ◇ **Fulbright Graduate Student Research Fellowship** (Autumn 2008 – Spring 2009) Penza, Russia.
- RESEARCH** ◇ **Modelling-Based Strategies for Constructing Materials with Desired Dielectric Property Profiles** (Summer 2017 – Present). Collaborators: Jacob Foley, Massachusetts College of Liberal Arts (North Adams, MA, USA), Hannah Yeung and Vadim V. Yakovlev, Worcester Polytechnic Institute (Worcester, MA, USA), Sébastien Vaucher, EMPA (Thun, BE, Switzerland). Sponsored by the Summer Research Institute, Massachusetts College of Liberal Arts (North Adams, MA, USA).
- ◇ **Lower-Dimensional Computational and Mathematical Models of Sintering by Microwaves** (Fall 2013 – Present). Advisors: Prof. Vadim Yakovlev, Worcester Polytechnic Institute (Worcester, MA, USA), Prof. Didier Bouvard, Institut Polytechnique de Grenoble (France). Sponsored by the National Science Foundation Graduate Research Fellowship, the Arvid and Marietta Anderson Graduate Fellowship, and the Chateaubriand Fellowship.
- ◇ **A Computational Approach to Determining Intrinsic Impedance of Perforated Metal Sheets** (Fall 2010 – Spring 2011). Advisor: Prof. Vadim Yakovlev, Worcester Polytechnic Institute (Worcester, MA, USA). Sponsored by General Mills, Inc. and by the EADS Company Foundation (currently Airbus).
- PATENT** **Electron gun for a multiple beam klystron with magnetic compression of the electron beams**, co-inventor. Assignee: Calabazas Creek Research, Inc. (San Mateo, CA). US Patent 8,547,006, granted October 1, 2013.
- SELECTED PEER-REVIEWED BOOKS** E.M. Kiley, V.V. Yakovlev, K. Ishizaki, and S. Vaucher (2012), **Applicability study of classical and contemporary models for effective complex permittivity of metal powders**, *J. Microwave Power and Electromagnetic Energy*, vol. 46, no. 1, pp. 26–38.
- ✂ **JOURNALS** S. Bogachev, D. Bouvard, E. Kiley, and V. Yakovlev (2011), **An iterative routine for macroscopic modeling of electromagnetic, thermal, and mechanical phenomena in microwave sintering**, in *Microwave and RF Power Applications*, Cépaduès Éditions, Junwu Tao (Ed.), pp. 372–375.
- R. Ives, A. Attarian, T. Bui, M. Read, J. David, H. Tran, W. Tallis, S. Davis, S. Gadson, N. Blach, D. Brown, and E. Kiley (2009), **Computational Design of Asymmetric Electron Beam Devices**, *IEEE Trans. on Electron Devices*, vol. 56, no. 5, pp. 753–761.
- SKILLS** ◇ Native English; basic Russian; conversational Portuguese; some French, German.
- ◇ MATLAB/Octave, C, C++, Python, \TeX / \LaTeX . Uses QuickWave-3D, Abaqus, COMSOL Multiphysics.