

Jackson R. Harter

236 NW 17th St., Corvallis, Oregon 97330
harterj@oregonstate.edu • (503) 568-4272 • <https://rtrp.github.io/osu-transport/>

RESEARCH INTERESTS

Boltzmann transport, deterministic methods, molecular dynamics, thermal conductivity, computational methods, nuclear materials, parallel computing, high temperature materials, fast spectrum nuclear reactors

EDUCATION

Oregon State University, Corvallis, Oregon

- Doctor of Philosophy (Ph.D.) in Nuclear Engineering Sep 2015 – Present
 - Adviser: Todd Palmer
 - Research areas: Deterministic phonon transport, lattice thermal conductivity, anharmonic phonon interaction, boundary resistance, transport theory
 - Minor: Materials Science
- Master of Science (M.S.) in Nuclear Engineering Sep 2013 – Sep 2015
 - Thesis: “Predicting Thermal Conductivity in Nuclear Fuels using Rattlesnake-Based Deterministic Phonon Transport Simulations”
 - Minor: Materials Science
- Bachelor of Science (B.S.) in Nuclear Engineering Sep 2009 – Jun 2013

Western Culinary Institute, Portland, Oregon

- Associate of Arts (A.A.) in Culinary Arts Aug 2003 – Nov 2004

WORK EXPERIENCE

Idaho National Laboratory, Idaho Falls, Idaho

- Intern, Fuel Modeling & Simulation Jun 2016 – Sep 2016
 - Research areas: Developed thermo-mechanical model of DISSECT irradiation experiment, coding thermal boundary resistance model for Rattlesnake
 - Supervisor: Daniel Schwen, Dan Wachs

Idaho National Laboratory, Idaho Falls, Idaho

- Intern, Fuel Modeling & Simulation Jun 2015 – Sep 2015
 - Research areas: Phonon transport, thermal conductivity, code development
 - Supervisor: Daniel Schwen

NuScale Power, Corvallis, Oregon

- Intern, Probabilistic Risk Assessment Jul 2013 – Jan 2015
 - Work responsibilities: Severe accidents, safety analysis, SMR, RELAP-5, MELCOR
 - Supervisor: Bill Galyean

ACADEMIC EXPERIENCE

Oregon State University, Corvallis, Oregon

- Graduate Research Assistant Sep 2014 – Jun 2015
 - Research areas: Deterministic phonon transport, thermal conductivity, UQ methods
 - Supervisor: Todd Palmer

Oregon State University, Corvallis, Oregon

- Graduate Teaching Assistant Sep 2013 – Jun 2014
 - Classes: Neutronics I, Neutronics II, Nuclear Reactor Laboratory
 - Supervisors: Qiao Wu, Todd Palmer, Robert Schickler

ACADEMIC AWARDS

- Henry W. & Janice J. Schuette Graduate Fellowship 2015 – 2017
- National Academy for Nuclear Training Fellowship 2013 – 2014
- Best Graduate Presentation Apr 2015
 - American Nuclear Society Student Conference
 - Math and Computation
- Best Senior Design Project, Nuclear Engineering Jun 2013
 - Oregon State University
 - “Target Delivery System for ²³⁸Pu Production”

SKILLS	BISON, Cubit, Git, LAMMPS, L ^A T _E X, MARMOT, MATLAB, MCNP5/6/X, Microsoft Office, MOOSE, ParaView, Rattlesnake/Yak, RELAP5-3D, Windows/OSX/Linux, C++ (novice)	
PUBLICATIONS	JOURNALS	
	[1] <u>J. Harter</u> , T. Palmer and P.A. Greaney, “Deterministic Phonon Transport Predictions of Thermal Conductivity in Uranium Dioxide with Xenon Impurities”, <i>Journal of Heat Transfer</i> , in review . [2] <u>J. Harter</u> , P.A. Greaney and T. Palmer, “Quantifying the Uncertainty in Deterministic Phonon Transport Calculations of Thermal Conductivity using Polynomial Chaos Expansions”, <i>Transactions of the American Nuclear Society</i> , 115 , 611–614 (2016). [3] <u>J. Harter</u> , P.A. Greaney and T. Palmer, “Characterization of Thermal Conductivity using Deterministic Phonon Transport in Rattlesnake”, <i>Transactions of the American Nuclear Society</i> , 112 , 829–832 (2015).	
	CONFERENCES	
	[1] <u>J. Harter</u> , P.A. Greaney, and T. Palmer, “Quantifying the Uncertainty in Deterministic Phonon Transport Calculations of Thermal Conductivity using Polynomial Chaos Expansions”, <i>American Nuclear Society Winter Meeting</i> , Las Vegas, NV, Nov 2016. [2] <u>J. Harter</u> , L. de Sousa Oliveira, A. Hosseini, T. Palmer and P.A. Greaney, “Efficient Deterministic Simulation of Phonon Transport in Nuclear Materials”, <i>Materials Science & Technology</i> , Salt Lake City, UT, Oct 2016. [3] <u>J. Harter</u> , P.A. Greaney, and T. Palmer, “Thermal Conductivity Prediction using Deterministic Phonon Transport in Rattlesnake”, <i>International Conference on Transport Theory</i> , Sicily, Italy, Sep 2015. [4] <u>J. Harter</u> , P.A. Greaney, and T. Palmer, “Characterization of Thermal Conductivity using Deterministic Phonon Transport in Rattlesnake”, <i>American Nuclear Society Professional Conference</i> , San Antonio, Texas, Jun 2015. [5] <u>J. Harter</u> , P.A. Greaney, and T. Palmer, “Characterization of Thermal Conductivity using Deterministic Phonon Transport in Rattlesnake”, <i>American Nuclear Society Student Conference</i> , College Station, Texas, Apr 2015. [6] L. Oliveira, P. A. Greaney and <u>J. Harter</u> , “Application of a multiscale Boltzmann transport solver to characterize thermal resistance from irradiation induced morphological changes in graphite”, <i>Materials Research Society Spring Meeting</i> , San Francisco, California, Apr 2015.	
PROFESSIONAL AFFILIATIONS & ACTIVITIES	American Nuclear Society , Chicago, IL	
	▪ Member	2009 – Present
CAMPUS ACTIVITIES	American Nuclear Society , Oregon State University Chapter	
	▪ President	Mar 2013 – Jun 2013
	▪ Vice President	Sep 2012 – Jun 2013
OTHER WORK EXPERIENCE	Western Culinary Institute , Portland, Oregon	
	▪ Chef Instructor, Restaurant Bleu	Apr 2006 – May 2008
	• Taught culinary school in restaurant practicum	
	• Taught practical basics of working in restaurant kitchens: time management, food preparation & utilization, menu development and costing, managing personal relationships	
	• Oversaw classes of 6-80 students, rotating every 6 weeks	