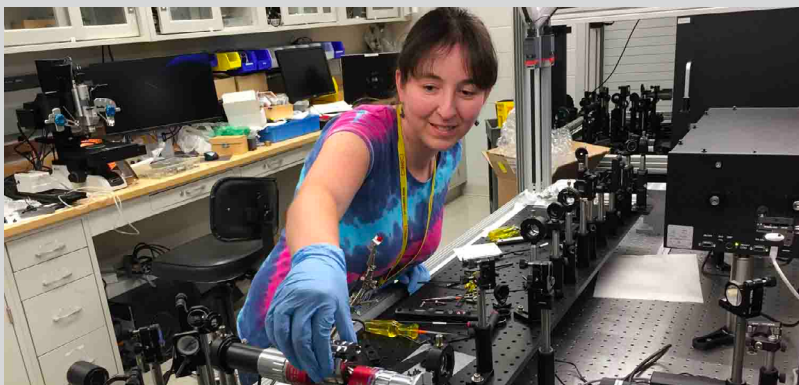


In this and forthcoming newsletters we will highlight members of COMPRES community. In this issue we spotlight the research and careers of recently appointed tenure track assistant professors (Part I). Stay tuned, Part 2 of “assistant professors” will be featured in the December issue; post-docs and graduate students in 2018!



Susannah Dorfman

Assistant Professor (2015-present)

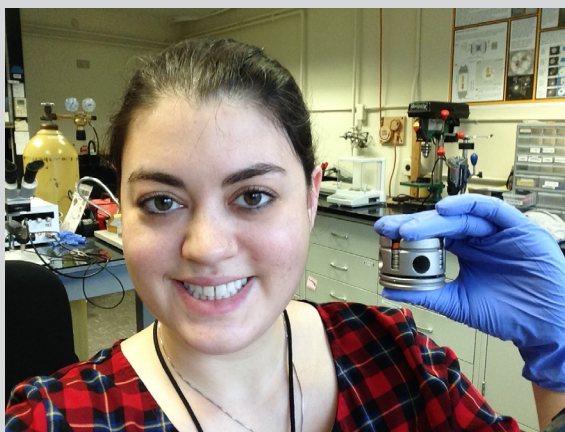
Department of Earth and Environmental Sciences
Michigan State University

dorfman3@msu.edu

<https://ees.natsci.msu.edu/people/faculty/dorfman-susannah/>

Susannah (Suki) Dorfman simulates the conditions inside Earth and other planets using experiments in the laser-heated diamond anvil cell at high pressures (up to 2.5 Mbar) and temperatures (up to 6000 K). She is interested in the effects of these extreme conditions on phase equilibria and physical properties of planetary materials including mantle silicates and carbonates. Her laboratory probes crystal structures and compositions in situ using synchrotron diffraction and spectroscopy and ex situ using electron microscopy techniques.

Suki received a S. B. at the Massachusetts Institute of Technology (2005), and a M.S. and Ph.D. at Princeton University (2008, 2012). Following grad school she was a postdoctoral scientist in the Institute of Condensed Matter Physics at the Ecole Polytechnique Federale de Lausanne (Swiss Federal Institute of Technology, Lausanne) in Switzerland.



Rebecca Fischer

Clare Boothe Luce Assistant Professor (2017-present)

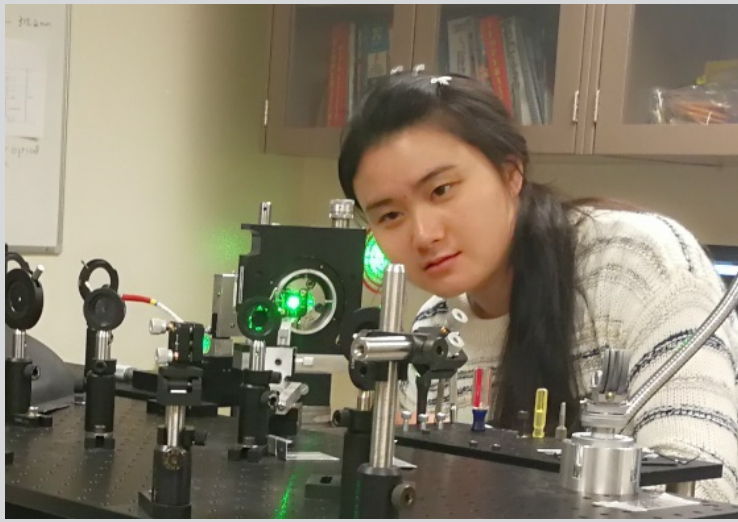
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Harvard University

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<https://eps.harvard.edu/people/rebecca-fischer>

Rebecca studies the compositions of Earth and planetary cores, the process of core formation, and the chemical consequences of planetary accretion. Some of her research involves investigating phase diagrams and equations of state, often of iron-rich alloys that serve as core analogue materials, to better understand what Earth's core is made of. This work uses synchrotron X-ray diffraction in a diamond anvil cell, including at COMPRES beamlines ALS 12.2.2 and NSLS X17C, and utilizes the COMPRES gas-loading system at APS. She combines experimental data with numerical models of planetary accretion and core formation to better understand how these processes occurred on Earth and other terrestrial planets.

Rebecca received a B.A. in Earth and Planetary Sciences and Integrated Science at Northwestern University (2009), and a Ph.D. in Geophysical Sciences at the University of Chicago (2015). After grad school she was a NSF Postdoctoral Fellow at the Smithsonian National Museum of Natural History and the University of California, Santa Cruz.



Jin Zhang

Assistant Professor (2016-present)

Department of Earth and Planetary Sciences and the
Institute of Meteoritics

University of New Mexico

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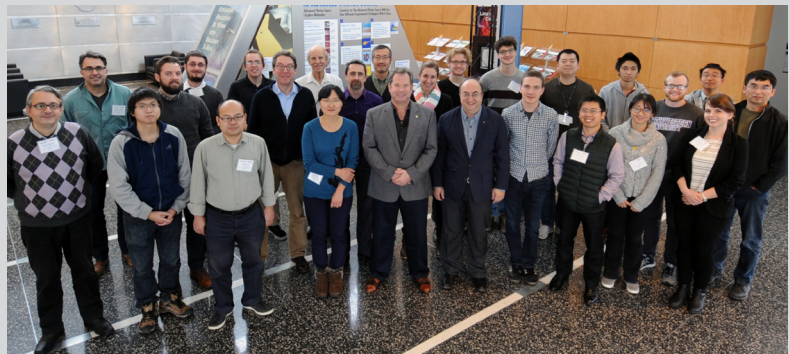
<http://epswww.unm.edu/faculty-and-staff/zhang/>

Jin Zhang's main research interests are understanding the Earth and other terrestrial planets in terms of their internal structures, composition, and dynamics through high-pressure high-temperature laboratory experiments. Such laboratory experiments include both investigations of physical properties of minerals/rocks and chemical reactions between adjacent mineral phases at the pressure – temperature conditions in the Earth's interior. In particular, she is interested in sound velocity measurements on minerals and rocks to quantify the compositional variations inside the Earth from a mineralogical perspective and start constructing a 2D or 3D mineralogical model of the Earth's interior.

Jin received a B.S. in Geology at Nanjing University, Jiangsu, China (2008), and a Ph.D. in Mineral Physics at the University of Illinois, Urbana-Champaign (2014). After grad school she was the COMPRES Technology Researcher at the Advanced Photon Source, Argonne National Laboratory and at Hawaii Institute of Geophysics and Planetology.

Recent COMPRES Workshop

Workshop on CONUSS and Synchrotron Mössbauer Data Analysis



The COMPRES supported Nuclear Resonant Scattering workshop was held Thursday, 11/6 through Sunday, 11/19. We had 28 participants, most from US universities, and some from Germany and China. Graduate students and post-docs had the opportunity to learn theory and applications from the experts in the morning sessions, and hands-on data analysis in the afternoon sessions under the supervision of Wolfgang Sturhahn. Organizers: Wenli Bi (wbi@aps.anl.gov); Ercan Alp (eea@aps.anl.gov). Workshop link: <https://www1.aps.anl.gov/Sector-3/Conferences-workshops/NRS2017>.

COMPRES Annual Meeting SAVE THE DATE! August 5-8, 2018



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