Neutron Imaging of Active Heat Exchangers
Patrick Geoghegan
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Thursday, April 26, 2018
Time: 9:00 – 10:00 AM
Location: 362 Willard Building
Coffee and donuts will be provided

Abstract: This talk will explore the balance between experimental fluid mechanics and Computational Fluid Mechanics with career examples, with the most recent being the neutron imaging of active heat pipes and microchannel heat exchangers, a non-invasive means of visualizing the working fluid in heat exchange devices.

Biography: Dr. Patrick Geoghegan is a member of the Building Equipment Research Group at ORNL. He has been the Principal Investigator of DOE ARPA-E and Buildings Technology Office funded projects, and technical lead on Advanced Manufacturing Office Combined Heat & Power related projects, primarily focused on additive manufacturing applications. He was the first to noninvasively visualize two-phase flow in microchannel heat exchangers using neutron imaging. He previously was a staff member at ORNL’s Spallation Neutron Source for 6 years, where he was the principal fluid flow designer of the liquid mercury jet flow target, designed to endure a 2 MW proton bombardment. He came from the Wellcome Trust Sanger Institute in Cambridge, UK, where he specialized in the microfluidics of DNA samples for the Human Genome Project. He studied at the University of Cambridge and University College Dublin.