

April Novak



Bio: April Novak is an Assistant Professor in the Nuclear, Plasma, and Radiological (NPRES) Department at the University of Illinois at Urbana-Champaign (UIUC). She leads research programs in computational methods for nuclear engineering with emphasis on thermal-hydraulics, Monte Carlo methods, multiphysics, high performance computing, and open-source software development. Dr. Novak is the PI for Cardinal, an open-source high-fidelity multiphysics application which is a winner of the 2023 R&D 100 Award. Prior to joining UIUC, she was a Fellow in the Computational Sciences Division at Argonne from 2020-2023, where she led and contributed to many modeling and simulation efforts for advanced reactors. She is also an expert on pebble bed reactor thermal-hydraulics, and during her PhD was the lead developer of the Pronghorn porous media MOOSE-based application. She has a PhD in Nuclear Engineering from the University of California, Berkeley (2020).

Years Beyond PhD: 4

Research Area: Computational thermal-hydraulics, Monte Carlo methods, multiscale and multiphysics algorithms, high performance computing, reactor design and analysis

School of Employment: University of Illinois, Urbana-Champaign

Educational Background (Field of Degree): PhD in Nuclear Engineering, University of California, Berkeley