



Physics Colloquium



Tuesday, October 8, 2019, 3:30PM in SC 10

Prof. Rusty Towell

NEXT Lab, Abilene Christian University

Research and Development of a University Molten Salt Research and Test Reactor

Nuclear fission is a tremendous energy source that remains underutilized globally to address the need for abundant, safe, affordable, carbon-free energy on demand. This regrettable situation can be rectified with the development of advanced reactors that are capable of meeting the world's energy needs. The Nuclear Energy eXperimental Testing (NEXT) Lab at Abilene Christian University was created to address this challenge. The NEXT Lab mission is to provide global solutions to the world's needs for energy that is less expensive and safer, water that is pure and abundant, and medical isotopes used to diagnose and treat cancer by advancing the technology of molten salt reactors while educating the next generation of leaders in nuclear science and engineering. The NEXT Collaboration is focusing on advancing the technical readiness level of molten salt as a coolant in liquid fueled molten salt reactors. Along with our university consortium, we are developing a plan to construct the first university molten salt research and test reactor. The current status of NEXT will be presented including the breadth of research across many disciplines.

Refreshments at 3:00PM in SC 103