

Scott Bogner – Colloquium – 11/30/2017

Title: “Frontiers in Nuclear Many-body Theory”

Abstract: One of the fundamental challenges for nuclear physics is to understand how nucleonic matter comes into being, how it evolves and organizes itself, and what nuclear phenomena emerge at different energy scales. In this colloquium, I describe how the interplay and coalescence of different threads: development of new many-body methods, rapidly increasing computational power, and experimental data from rare isotopes, push the frontiers of nuclear theory far beyond what was possible just a few years ago. The focus of my presentation will be on effective field theory and renormalization group methods that have revolutionized the field.