



“Many-body crossover in cold atomic and nuclear systems”

by Hiroyuki Tajima (University of Tokyo)

Time and Date: 13:00-15:00, May 7th, 2024

Place: Room 743, Science Complex B H03 (hybrid)

Registration: "<https://us02web.zoom.us/meeting/register/tZllcu2hrzMpHtKSrT-PYWFqUWnc4DlfYILz>”

Recent developments of quantum systems called ultracold Fermi atomic gases have experimentally revealed a continuous crossover from the Bardeen-Cooper-Schrieffer (BCS) superfluidity, accompanied by Cooper pair formation, to the Bose-Einstein condensates (BEC) of tightly bound molecules, by changing the two-particle inter-atomic interactions associated with the Feshbach resonance. In this talk, we discuss the similarity between this many-body phenomenon, known as the BCS-BEC crossover, and the hadron-quark crossover expected to occur in neutron star interiors.