Université Paris-Saclay
IJCLab
(Laboratoire de Physique des 2 Infinis Irène Joliot-Curie)
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Séminaire de Physique Nucléaire Théorique

Nuclear physics in a box.

Sebastian König
(North Carolina State University at Rayleigh)

Nuclear physics is connected to many different areas of physics, spanning arcs from particle physics all the way to astronomy. A solid understanding of nuclear systems from first principles, that is, based on Quantum Chromodynamics as the fundamental theory of the strong interaction, is therefore of great importance. In this talk I will present an overview of how to address this challenge using simulations of nuclear systems in finite volume. This approach, which is in fact not limited to nuclear physics, is based on the observation that the real-world properties of quantum systems are encoded in how their discrete energy levels change when the size of the simulation volume is varied, thus providing a powerful theoretical tool.

Jeudi 13 Juillet 2023
14 :00
IJCLab, Bât. 100, Salle Salle A018 (IJCLab)