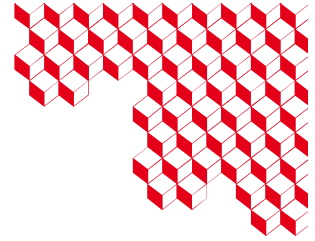




Institut de Recherche sur les lois
Fondamentales de l'Univers

Département de Physique Nucléaire



Séminaire ESNT-DPhN

Lundi 8 avril 2024 14-15h

Bât 703, p.135 DPhN CEA Saclay, Orme des Merisiers

Ubirajara van Kolck

*European Centre for Theoretical Studies in Nuclear Physics and Related Areas -ECT**

Why EFT should not be Escoffier's veal in your nuclear cooking

In modern nuclear physics, often the framework of effective field theories (EFTs) is invoked in the derivation of potentials and currents only to be subsequently discarded, much like the fabled veal in a pheasant recipe attributed to the chef Escoffier. This procedure has been phenomenologically successful, despite abandoning the very motivation for using EFT for nuclei - a manifest independence on assumptions about the details of the QCD dynamics.

I will discuss the importance of renormalization and naturalness, and describe some current attempts to extend nuclear EFTs beyond the alpha particle.

*This seminar is organized in the framework of the ESNT project:
Effective Field theory and Strong interaction with accurate error estimation
held at CEA Saclay Orme les Merisiers site, 8th-26th April 2024.
<https://esnt.cea.fr/Phoceae/Page/index.php?id=118>*

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