

# SÉMINAIRE du PÔLE THÉORIE



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## Many-body physics from nuclear effective field theories

Understanding of the nuclear many-body physics taking place in neutron stars and supernovae is central to understanding their macroscopic behavior. Controlled nuclear physics inputs can be obtained with effective field theory (EFT). I will describe recent applications of nuclear EFTs to astrophysics including the in-medium modifications of the pion and neutrinosphere physics. Lattice field theory is central to these studies, and I will describe how recent advancements to taming the sign problem might be useful for astrophysics

*Thursday 15 June 2023, 14h00*  
*IJCLab, Bât. 100, room A015*