

International Centre for Theoretical Physics South American Institute for Fundamental Research



School on Effective Field Theory across Length Scales

Instituto de Física Teórica - UNESP, São Paulo, Brasil

February 22 - March 4, 2016

Constructing an effective field theory (EFT) to exploit the hierarchy of length scales in a physical system has become an essential skill to be mastered by the modern theoretical physicist. EFTs play a prominent role in almost all branches of modern theoretical physics including particle physics, gravitation, general relativity and condensed matter. This school will provide an overview of the general concepts and principles underlying the construction of an EFT, illustrating these concepts and principles in concrete applications in different areas of physics. The school is intended for PhD students, postdocs and young researchers who are seeking expertise in EFTs. There is no registration fee and limited funds are available for local and travel support of participants.

Organizers:

Ubirajara van Kolck (IPN Orsay & U. of Arizona)
Gastão Krein (IFT-UNESP)
Rafael Porto (IFT-UNESP & ICTP-SAIFR)

Lecturers:

Raphael Flauger (U. Texas, Austin): EFT for strings

Hans-Werner Hammer (TU Darmstadt): EFT for cold atoms

David Kaplan (U. Washington): *EFTs for strong-interacting/nuclear systems*

Alberto Nicolis* (Columbia U.): *EFT in condensed matter/fluids*

Ira Rothstein (Carnegie Mellon U.): General introduction on concepts in EFT

Leonardo Senatore (Stanford U.): *EFT for cosmology – large scale structures*

*to be confirmed

The application deadline is December 11, 2015

The online registration form and more information can be found at:

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