SEMINÁŘ OTF ÚJF, ŘEŽ

TOMÁŠ BRAUNER

(Technische Universität, Wien)

Spontaneous symmetry breaking and Nambu-Goldstone bosons in nonrelativistic systems

Abstrakt

The principle of spontaneous symmetry breaking underlies our understanding of a number of phenomena in condensed matter physics, as well as the theories of fundamental interactions among elementary particles. The goal of this seminar will be to give an overview of results from the last few years, advancing general understanding of spontaneous symmetry breaking in quantum many-body systems. After a general introduction I will focus on three main topics: (i) classification of Nambu-Goldstone bosons, (ii) description of a new class of excitations, protected by symmetry: the "massive Nambu-Goldstone bosons", and if time permits, (iii) construction of effective field theories for spontaneously broken symmetries.

Seminář se koná v úterý 3. 2. 2015 v 10:30 hod.
v seminární místnosti OTF ÚJF Řež

A. Cieplý/otf