## Università degli Studi di Trieste Dipartimento di Fisica Alumnorum Colloquia

## Michele Casula

Institut de Minéralogie, de Physique des Matériaux et de Cosmochimie (IMPMC), Sorbonne Université, CNRS UMR 7590, IRD UMR 206, MNHN, Paris, France

Thursday, May 17, 4.00 PM - Lecture Room A, F Building, Physics Dept. - via Valerio 2 - Trieste

## A journey through superconductivity: from the origins to the latest developments.



Superconductivity, namely the ability of a material to carry electric current without dissipation, is a fascinating phenomenon that attracted the attention of many researchers since its first discovery in 1911. Despite a huge amount of experimental and theoretical work done on the subject, several aspects of superconductivity are still unclear. While in some cases the physical origins are known and well established, in some other situations the underlying microscopic mechanism is highly debated. This is the case of the so-called

"strongly correlated systems" that usually feature the highest critical temperatures Tc, below which the

phenomenon occurs. In the last decade, two new classes of superconductors have been discovered: the iron-based superconductors, and the hydrogen-rich superconductors, the latest with the highest Tc ever measured. They witness the richness and diversity of the field, which I will try to survey in this talk.



Organizzazione a cura di: G. Senatore, E. Milotti, E. Vesselli



## Everyone interested in the topic is welcome to attend

Informazioni: seminari@ts.infn.it