

## DIPARTIMENTO DI SCIENZE MATEMATICHE, FISICHE E INFORMATICHE http://smfi.unipr.it

## **SEMINARIO**



## **Dr. Anshu Kataria**, SMFI **Wednesday 4 dicembre 2024 at 17:00** Aula D, Plesso di Chimica

## μSR study of Re-based distorted Kagome superconductors.

<u>Abstract</u> Frustrated lattices, such as kagome structures, host unique quantum states, including spin liquids and unconventional superconductivity. Geometric frustration and Fermi surface nesting drive diverse SC pairing symmetries, such as *a*<sup>2</sup>wave and s+ –. This seminar highlights Re-based distorted kagome systems, Re<sub>2</sub>Hf and Re<sub>2</sub>Zr, where frustration stabilises novel superconducting states. I will present detailed experimental observations of these sAbstract Frustrated lattices, such as kagome structures, host unique quantum states, including spin liquids and unconventional superconductivity. Geometric frustration and Fermi surface nesting drive diverse SC pairing symmetries, such as *d*-wave and s+ –. This seminar highlights Re-based distorted kagome systems, Re<sub>2</sub>Hf and Re<sub>2</sub>Zr, where frustration and Fermi surface nesting drive diverse SC pairing symmetries, such as *d*-wave and s+ –. This seminar highlights Re-based distorted kagome systems, Re<sub>2</sub>Hf and Re<sub>2</sub>Zr, where frustration stabilises novel superconducting states. I will present detailed experimental observations of these systems using microscopic techniques, including muon-spin spectroscopy.

Organizzatore: prof. Roberto De Renzi