

## Bollettino Settimanale

Lunedì 29 aprile 2024	Martedì 30 aprile 2024	Mercoledì 1 maggio 2024	Giovedì 2 maggio 2024	Venerdì 3 maggio 2024
<p><b>SEMINARI INFN</b>  <b>AULA CONVERSI ORE 16.00</b></p> <p><b>Ricerche gravitazionali sul sistema Terra-Luna-Sole</b></p> <p><i>Simone Dell'Agnello</i>  <i>(Istituto Nazionale di Fisica Nucleare)</i></p>				<p><b>SEMINARIO STRUTTURA DELLA MATERIA</b>  <b>SALA LAUREE ORE 11.00</b></p> <p><b>Nanooptics in 2D materials</b></p> <p><i>Pablo Alonso González</i>  <i>(University of Oviedo)</i></p> <p>Highly anisotropic crystals have recently attracted considerable attention due to their ability to support polaritons with unique properties, such as hyperbolic dispersion, negative phase velocity, or extreme confinement. In particular, the biaxial van der Waals semiconductor <math>\alpha</math>-phase molybdenum trioxide (<math>\alpha</math>-MoO<sub>3</sub>) has received much attention [1] due to its ability to support in-plane hyperbolic phonon polaritons (PhPs) —infrared (IR) light coupled to lattice vibrations in polar materials— with ultra-low losses, offering an unprecedented platform for controlling the flow of energy at the nanoscale. In this talk, we will show experimental demonstrations of the unique behavior of PhPs in these crystals, including the visualization of anomalous cases of the fundamental optical phenomena of refraction [2] and reflection [3], and the exotic phenomenon of canalization, in which PhPs propagate along a single direction with ultralow losses [4].</p>