

# CONGRESSO NAZIONALE DI SCIENZE PLANETARIE BORMIO 2024

## Descrizione Sessioni Focus

### **La popolazione dei NEO: una minaccia ed una risorsa. Convener: Simone Ieva (INAF-Osservatorio di Roma)**

The Near-Earth Object (NEO) population represent both a potential threat and a useful resource for human civilization, due to the fact that their proximity makes them the most accessible bodies in our Solar System. Their investigation can offer important clues to several key questions (e.g., planetary formation, asteroid/comet transition, delivery of water and organics to the early Earth, emergence of life). Moreover, valued minerals stored inside NEOs have already intrigued private companies, allured by the idea of obtaining resources through asteroid mining. Last but not least, NEOs represent a risk for future human civilization, since some of them can be potential impactors. For all these reasons, several space missions have recently visited (or are planning to do that in the near future) a handful of NEOs: the JAXA Hayabusa-2 and the NASA OSIRIS-REx mission have returned to Earth a sample of the primitive carbonaceous NEOs (162173) Ryugu and (101955) Bennu; the NASA DART and the ASI LICIACube spacecraft have characterized the binary NEO system (65803) Didymos, with DART being the first successful humanity attempt to deflect a NEO; the JAXA Destiny+ mission will leave in 2024 to visit the active NEO and meteoroid stream progenitor (3200) Phaethon. This session will cover the recent advances in the NEO field, with presentations featuring ground- and space-based data and laboratory measurements of terrestrial NEO analogues.