

**Jeudi 17 octobre 2024 à 11h (IAS, bâtiment 121, salle 4-5)**

**The Rocky, the Icy, and the Unknown: Constraining the History of the Solar System through its Minor Planets**

**Max Mahlke (IAS)**

The minor planets of the Solar System are invaluable relics from its early history, preserving a record of the processes that shaped its formation and evolution. These objects display a wide range of compositions, from rocky and metallic to icy and carbonaceous, providing crucial insights into the diverse environments that existed within the Solar System's protoplanetary disk. In this talk, I will summarize our current understanding of the compositional diversity among asteroids in the inner Solar System, derived from remote-sensing observations, the meteorite record, and sample-return missions. I will connect this understanding to the processes at play in the early Solar System and highlight key open questions regarding the formation of the (minor) planets - many of which we may soon address. An upcoming surge of observations from ground-based and space telescopes is set to reveal the minor planets in both the inner and outer Solar System in a new light, continuing what has been termed the "golden age of asteroid research".