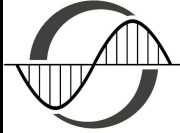




UNIVERSITÀ
degli STUDI
di CATANIA



DIPARTIMENTO DI FISICA E ASTRONOMIA
“ETTORE MAJORANA”

DOTTORATO DI RICERCA IN FISICA
CICLO XLI A.A. 2025/2026

Star-planet interactions in extrasolar planetary systems

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Teaching staff

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Program of the course:

1. Overview of star-planet interactions in extrasolar planetary systems;
2. Tidal interactions;
3. Stellar high-energy radiation and evaporation of planetary atmospheres;
4. Star-planet magnetic interactions;
5. Hot Jupiters, stellar rotation, and magnetic activity.

Bibliography:

General introduction: H. Deeg, J. A. Belmonte (Eds.) 2025, The Handbook of Exoplanets, Springer-Nature; Section on Stars and Planets: Interactions. For more information on the Handbook, please see:
<https://link.springer.com/referencework/10.1007/978-3-319-30648-3>

Research papers describing the latest updates in the field will be proposed and briefly discussed with the students.