



TITLE

Star-planet interactions in extrasolar planetary systems

2 CFU

Teaching staff

Nome Cognome: Antonino Francesco Lanza

Email: antonino.lanza@inaf.it

Office: INAF-Osservatorio Astrofisico di Catania, Via S. Sofia, 78 – 95123 Catania, Italy

Telephone: +39-095-7332-238

Reception hours: from 9.00 to 11.00 a.m. from Monday to Friday by making an appointment by email.

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 exoplanet atmospheres;
4. Star-planet magnetic interactions;
5. Hot Jupiters, stellar rotation, and magnetic activity.

Bibliography:

General introduction: H. Deeg, J. A. Belmonte (Eds.) 2018, The Handbook of Exoplanets, Springer-Nature; Section on Stars and Planets: Interactions.

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