

# **Exoplanets in Italy: status and perspectives**

## **Report of Contributions**

Contribution ID: 1

Type: **not specified**

# Protoplanetary Disks and the Dawn of Planets

*Wednesday 26 February 2025 10:05 (25 minutes)*

Invited talk

**Presenter:** TESTI, Leonardo (Dipartimento di Fisica e Astronomia, Università di Bologna)

**Session Classification:** Planet Formation and Observations of Infant Planets

Contribution ID: 2

Type: **not specified**

## **Orbital architectures of Jupiter-mass exoplanets: the role of planet migration in protoplanetary discs**

*Wednesday 26 February 2025 10:30 (15 minutes)*

**Presenter:** SCARDONI, Chiara E.

**Session Classification:** Planet Formation and Observations of Infant Planets

Contribution ID: 3

Type: **not specified**

## **Evidence of disc instability in the planet forming disc of AB Aur**

*Wednesday 26 February 2025 10:45 (15 minutes)*

**Presenter:** LODATO, Giuseppe (Istituto Nazionale di Astrofisica (INAF))

**Session Classification:** Planet Formation and Observations of Infant Planets

Contribution ID: 4

Type: **not specified**

## **Direct imaging of accreting protoplanets**

*Wednesday 26 February 2025 11:00 (15 minutes)*

**Presenter:** Dr ANTONIUCCI, Simone (INAF - OAR)

**Session Classification:** Planet Formation and Observations of Infant Planets

Contribution ID: 5

Type: **not specified**

## **Planet formation with ERIS - report of the INAF ERIS GTO program**

*Wednesday 26 February 2025 11:15 (15 minutes)*

**Presenter:** FEDELE , Davide (Istituto Nazionale di Astrofisica (INAF))

**Session Classification:** Planet Formation and Observations of Infant Planets

Contribution ID: 6

Type: **not specified**

## **Planet formation from the Solar System to Exoplanetary System**

*Wednesday 26 February 2025 11:50 (25 minutes)*

Invited talk

**Presenter:** MORBIDELLI, Alessandro

**Session Classification:** Planet Formation and Observations of Infant Planets

Contribution ID: 7

Type: **not specified**

## **Multiple planets perturbations on the dust in a circumstellar disk**

*Wednesday 26 February 2025 12:15 (15 minutes)*

**Presenter:** MARZARI, Francesco

**Session Classification:** Planet Formation and Observations of Infant Planets



Contribution ID: 8

Type: **not specified**

# **Unlocking the Potential of High-Resolution Spectroscopy for Protoplanet Research: Insights from synthetic observations**

*Wednesday 26 February 2025 12:30 (15 minutes)*

**Presenter:** PENG, Jiacheng

**Session Classification:** Planet Formation and Observations of Infant Planets

Contribution ID: 9

Type: **not specified**

## **Rethinking the proto-planetary disc turbulent paradigm**

*Wednesday 26 February 2025 12:45 (15 minutes)*

**Presenter:** ROSOTTI, Giovanni

**Session Classification:** Planet Formation and Observations of Infant Planets

Contribution ID: 10

Type: **not specified**

## **Navigating the Outer Planetary Systems: SHARK-NIR's Contributions to Understanding Planet Formation and Evolution**

*Wednesday 26 February 2025 14:30 (25 minutes)*

Invited talk

**Presenter:** D'ORAZI, Valentina (University of Rome Tor Vergata / INAF OAPd)

**Session Classification:** Demographics and Architectures of Planetary Systems

Contribution ID: 11

Type: **not specified**

## **Satellites around exoplanets and brown dwarfs**

*Wednesday 26 February 2025 14:55 (15 minutes)*

**Presenter:** LAZZONI, Cecilia

**Session Classification:** Demographics and Architectures of Planetary Systems

Contribution ID: 12

Type: **not specified**

## **Unveiling Planetary System Architectures: Low-Mass Planets Around Sun-like Stars and M Dwarfs**

*Wednesday 26 February 2025 15:10 (25 minutes)*

Invited talk

**Presenter:** PINAMONTI, Matteo (Istituto Nazionale di Astrofisica (INAF))

**Session Classification:** Demographics and Architectures of Planetary Systems

Contribution ID: 13

Type: **not specified**

## **Validating Gaia astrometric candidates: a deep dive with HARPS-N**

*Wednesday 26 February 2025 15:35 (15 minutes)*

**Presenter:** BARBATO, Domenico (Istituto Nazionale di Astrofisica (INAF))

**Session Classification:** Demographics and Architectures of Planetary Systems

Contribution ID: 14

Type: **not specified**

## **Detection and characterization of planetary mass objects using a multi-technique approach**

*Wednesday 26 February 2025 15:50 (15 minutes)*

**Presenter:** MESA, Dino (Istituto Nazionale di Astrofisica (INAF))

**Session Classification:** Demographics and Architectures of Planetary Systems

Contribution ID: 15

Type: **not specified**

## **Unveiling the history of the warm Jupiters**

*Wednesday 26 February 2025 16:05 (15 minutes)*

**Presenter:** CARLEO, Ilaria

**Session Classification:** Demographics and Architectures of Planetary Systems



Contribution ID: 16

Type: **not specified**

## Young planetary systems

*Wednesday 26 February 2025 16:50 (25 minutes)*

Invited talk

**Presenter:** BENATTI, Serena

**Session Classification:** Demographics and Architectures of Planetary Systems

Contribution ID: 17

Type: **not specified**

## **Towards the characterisation of Earth analogues: news from the HARPS-N Collaboration**

*Wednesday 26 February 2025 17:15 (15 minutes)*

**Presenter:** MALAVOLTA, Luca (Università degli Studi di Padova)

**Session Classification:** Demographics and Architectures of Planetary Systems

Contribution ID: **18**

Type: **not specified**

## **HONEI: the HOt-NEptune Initiative**

*Wednesday 26 February 2025 17:30 (15 minutes)*

**Presenter:** NAPONIELLO, Luca (Istituto Nazionale di Astrofisica (INAF))

**Session Classification:** Demographics and Architectures of Planetary Systems

Contribution ID: **19**

Type: **not specified**

## **The OMEGA Key Project search for microlensing exoplanets**

*Wednesday 26 February 2025 17:45 (15 minutes)*

**Presenter:** ROTA, Paolo

**Session Classification:** Demographics and Architectures of Planetary Systems

Contribution ID: 20

Type: **not specified**

## **Transit Timing Variation analysis in the TESS and CHEOPS era: towards Ariel and PLATO**

*Wednesday 26 February 2025 18:00 (15 minutes)*

**Presenter:** BORSATO, Luca

**Session Classification:** Demographics and Architectures of Planetary Systems

Contribution ID: 21

Type: **not specified**

# **An excess of stellar companions in stars with hot Jupiters**

*Wednesday 26 February 2025 18:15 (15 minutes)*

**Presenter:** GANDOLFI, Davide

**Session Classification:** Demographics and Architectures of Planetary Systems

Contribution ID: 22

Type: **not specified**

## **Genetic links between stars, their circumstellar disks and their planets**

*Thursday 27 February 2025 09:00 (25 minutes)*

Invited talk

**Presenter:** TURRINI, Diego (Istituto Nazionale di Astrofisica (INAF))

**Session Classification:** The Star-Environment-Planet connection

Contribution ID: 23

Type: **not specified**

## **Asteroseismic Constraints on Exoplanet Host Stars: Insights from Current Efforts and Preparatory Work for PLATO**

*Thursday 27 February 2025 09:25 (15 minutes)*

**Presenter:** MIGLIO, Andrea (Istituto Nazionale di Astrofisica (INAF))

**Session Classification:** The Star-Environment-Planet connection



Contribution ID: 24

Type: **not specified**

## **The exoplanet population in the Galactic context from the Ariel sample**

*Thursday 27 February 2025 09:40 (15 minutes)*

**Presenter:** TSANTAKI, Maria (Istituto Nazionale di Astrofisica (INAF))

**Session Classification:** The Star-Environment-Planet connection

Contribution ID: 25

Type: **not specified**

## **Non solar-like stars as a probe for planet formation**

*Thursday 27 February 2025 09:55 (15 minutes)*

**Presenter:** MALDONADO, Jesus

**Session Classification:** The Star-Environment-Planet connection

Contribution ID: 26

Type: **not specified**

## **White dwarfs, dust, disks and debris: exo-rocks compositions and the end of planetary systems**

*Thursday 27 February 2025 10:10 (15 minutes)*

**Presenter:** GENTILE FUSILLO, Nicola

**Session Classification:** The Star-Environment-Planet connection

Contribution ID: 27

Type: **not specified**

## Star-Planet Interaction

*Thursday 27 February 2025 10:55 (25 minutes)*

Invited talk

**Presenter:** LANZA, Antonino Francesco (Istituto Nazionale di Astrofisica (INAF))

**Session Classification:** The Star-Environment-Planet connection

Contribution ID: 28

Type: **not specified**

## **Close-in non-transiting planets as a key to improving our understanding of star-planet interactions**

*Thursday 27 February 2025 11:20 (15 minutes)*

**Presenter:** BRETON, Sylvain (Istituto Nazionale di Astrofisica (INAF))

**Session Classification:** The Star-Environment-Planet connection

Contribution ID: 29

Type: **not specified**

## **Star-Planet Interactions (SPI): Is planetary inward migration responsible for GJ 504's fast rotation and bright X-ray luminosity? New constraints from eROSITA**

*Thursday 27 February 2025 11:35 (15 minutes)*

**Presenter:** PEZZOTTI, Camilla (University of Liège)

**Session Classification:** The Star-Environment-Planet connection

Contribution ID: **30**

Type: **not specified**

## **Parametric study of star-planet interaction in case of HD209458b**

*Thursday 27 February 2025 11:50 (15 minutes)*

**Presenter:** IVANOVSKI, Stavro

**Session Classification:** The Star-Environment-Planet connection

Contribution ID: 31

Type: **not specified**

## **Can Planetary Wind Form a Circumstellar Disk? Insights from the WASP-12 Hot Jupiter System**

*Thursday 27 February 2025 12:05 (15 minutes)*

**Presenter:** COLOMBO , Salvatore (Istituto Nazionale di Astrofisica (INAF))

**Session Classification:** The Star-Environment-Planet connection



Contribution ID: 32

Type: **not specified**

## Evaporation of close-in planets

*Thursday 27 February 2025 12:20 (25 minutes)*

Invited talk

**Presenter:** GUILLUY, Gloria (Istituto Nazionale di Astrofisica (INAF))

**Session Classification:** Atmospheric Characterization of Exoplanets

Contribution ID: 33

Type: **not specified**

## **How long a planetary atmosphere could resist to the action of stellar wind?**

*Thursday 27 February 2025 12:45 (15 minutes)*

**Presenter:** DI MAURO, Maria Pia

**Session Classification:** Atmospheric Characterization of Exoplanets

Contribution ID: 34

Type: **not specified**

## **Planetary Atmospheres from Low and High Dispersion Spectroscopy**

*Thursday 27 February 2025 14:30 (25 minutes)*

Invited talk

**Presenter:** BORSA, Francesco (Istituto Nazionale di Astrofisica (INAF))

**Session Classification:** Atmospheric Characterization of Exoplanets

Contribution ID: 35

Type: **not specified**

## **Retrieving the Atmospheres of Distant Worlds: Insights from High-Resolution Spectroscopy**

*Thursday 27 February 2025 14:55 (15 minutes)*

**Presenter:** GIACOBBE, Paolo

**Session Classification:** Atmospheric Characterization of Exoplanets

Contribution ID: 36

Type: **not specified**

## **High dispersion optical phase curves of ultra-hot Jupiters with SHINE ON**

*Thursday 27 February 2025 15:10 (15 minutes)*

**Presenter:** PINO, Lorenzo (Istituto Nazionale di Astrofisica (INAF))

**Session Classification:** Atmospheric Characterization of Exoplanets

Contribution ID: 37

Type: **not specified**

## **Single line analysis: a powerful tool to probe exoplanetary atmospheres**

*Thursday 27 February 2025 15:25 (15 minutes)*

**Presenter:** D'ARPA, Mattia Claudio (Istituto Nazionale di Astrofisica (INAF))

**Session Classification:** Atmospheric Characterization of Exoplanets

Contribution ID: **38**

Type: **not specified**

## **Atmospheric characterization of Exoplanets with CHEOPS**

*Thursday 27 February 2025 15:40 (15 minutes)*

**Presenter:** SINGH, Vikash (Istituto Nazionale di Astrofisica (INAF))

**Session Classification:** Atmospheric Characterization of Exoplanets

Contribution ID: 39

Type: **not specified**

## **Modelling Exoplanetary Atmospheres undergoing Atmospheric Escape Mechanisms**

*Thursday 27 February 2025 15:55 (15 minutes)*

**Presenter:** BIASSONI, Federico

**Session Classification:** Atmospheric Characterization of Exoplanets



Contribution ID: 40

Type: **not specified**

## **Exo-climates and habitability of rocky planets: modelling tools and systematic studies for future instruments**

*Thursday 27 February 2025 16:40 (15 minutes)*

**Presenter:** SILVA, Laura

**Session Classification:** Atmospheric Characterization of Exoplanets

Contribution ID: 41

Type: **not specified**

## **Constraining exoplanetary clouds with Jupiter Observations: Insights from Juno & JWST**

*Thursday 27 February 2025 16:55 (15 minutes)*

**Presenter:** BIAGIOTTI, Francesco

**Session Classification:** Atmospheric Characterization of Exoplanets

Contribution ID: 42

Type: **not specified**

## **ASTERIA: Adaptability of cyanobacteria from extreme environments to stellar UV radiation**

*Thursday 27 February 2025 17:10 (15 minutes)*

**Presenter:** BILLI, Daniela

**Session Classification:** Atmospheric Characterization of Exoplanets

Contribution ID: 43

Type: **not specified**

## **Engaging the public with exoplanets: the INAF perspective**

*Thursday 27 February 2025 17:25 (15 minutes)*

**Presenter:** MIGNONE, Claudia (Istituto Nazionale di Astrofisica (INAF))

**Session Classification:** Outreach, education and training

Contribution ID: 44

Type: **not specified**

## **Round table on the Perspectives for the training of young researchers in exoplanetary sciences**

*Thursday 27 February 2025 17:40 (50 minutes)*

**Session Classification:** Outreach, education and training

Contribution ID: 45

Type: **not specified**

## **PLATO: an ESA mission to discover transiting habitable Earths around solar-type stars**

*Friday 28 February 2025 09:00 (25 minutes)*

Invited talk

**Presenter:** NASCIMBENI, Valerio (INAF-OAPD)

**Session Classification:** Future Instruments and Technologies for Exoplanet Science

Contribution ID: 46

Type: **not specified**

## Ariel

*Friday 28 February 2025 09:25 (25 minutes)*

Invited talk

**Presenter:** TINETTI, Giovanna

**Session Classification:** Future Instruments and Technologies for Exoplanet Science

Contribution ID: 47

Type: **not specified**

## **The Roman Galactic Exoplanet Survey: demographics beyond the snow line with microlensing**

*Friday 28 February 2025 09:50 (15 minutes)*

**Presenter:** BOZZA, Valerio (Istituto Nazionale di Astrofisica (INAF))

**Session Classification:** Future Instruments and Technologies for Exoplanet Science



Contribution ID: 48

Type: **not specified**

## **HWO and LIFE: future space telescopes to look for life in the universe**

*Friday 28 February 2025 10:05 (25 minutes)*

Invited talk

**Presenter:** ALEI, Eleonora

**Session Classification:** Future Instruments and Technologies for Exoplanet Science

Contribution ID: 49

Type: **not specified**

## **A look to the future: the HWO mission**

*Friday 28 February 2025 10:30 (15 minutes)*

**Presenter:** FONTANA, Adriano (Istituto Nazionale di Astrofisica (INAF))

**Session Classification:** Future Instruments and Technologies for Exoplanet Science

Contribution ID: 50

Type: **not specified**

## **Pushing the Limits of space-based Astrometry: Technological Advances and Technical challenges**

*Friday 28 February 2025 11:15 (15 minutes)*

**Presenter:** BUSONERO, Deborah (Istituto Nazionale di Astrofisica (INAF))

**Session Classification:** Future Instruments and Technologies for Exoplanet Science

Contribution ID: 51

Type: **not specified**

## **ANDES the High-Resolution Spectrograph for the ELT - Overview, Future Developments, and Science Objectives**

*Friday 28 February 2025 11:30 (25 minutes)*

Invited talk

**Presenters:** MARCONI, Alessandro (Dipartimento di Fisica e Astronomia, Università di Firenze); DI  
MARCANTONIO, Paolo (Istituto Nazionale di Astrofisica (INAF))

**Session Classification:** Future Instruments and Technologies for Exoplanet Science

Contribution ID: 52

Type: **not specified**

## **Improving the SPHERE's Extreme Adaptive Optics correction with SAXO+**

*Friday 28 February 2025 11:55 (15 minutes)*

**Presenter:** SCHREIBER, Laura (Istituto Nazionale di Astrofisica (INAF))

**Session Classification:** Future Instruments and Technologies for Exoplanet Science

Contribution ID: 53

Type: **not specified**

## **The Planetary Camera and Spectrograph (PCS) for the ELT**

*Friday 28 February 2025 12:10 (15 minutes)*

**Presenter:** GRATTON, Raffaele

**Session Classification:** Future Instruments and Technologies for Exoplanet Science

Contribution ID: 54

Type: **not specified**

## **The Sardinia Radio Telescope in the Breakthrough Listen Program and synergies with the science of exoplanets**

*Friday 28 February 2025 12:25 (15 minutes)*

**Presenter:** MELIS, Andrea (Istituto Nazionale di Astrofisica (INAF))

**Session Classification:** Future Instruments and Technologies for Exoplanet Science

Contribution ID: 55

Type: **not specified**

## **The role of the TNG in the exoplanetary science of the next future**

*Friday 28 February 2025 12:40 (15 minutes)*

**Presenter:** GHEDINA, Adriano (Istituto Nazionale di Astrofisica (INAF))

**Session Classification:** Future Instruments and Technologies for Exoplanet Science



Contribution ID: 56

Type: **not specified**

## **GAPS**

*Friday 28 February 2025 14:30 (15 minutes)*

**Presenter:** MICELA, Giusi

**Session Classification:** Perspectives for Exoplanets Science in Italy

Contribution ID: 57

Type: **not specified**

## **Meet the JEDI collaboration - JEds and Disk @ INAF**

*Friday 28 February 2025 14:45 (15 minutes)*

**Presenter:** BACCIOTTI, Francesca

**Session Classification:** Perspectives for Exoplanets Science in Italy

Contribution ID: 58

Type: **not specified**

## **Round-table on the Perspectives for Exoplanets Science in Italy**

*Friday 28 February 2025 15:00 (1h 30m)*

**Session Classification:** Perspectives for Exoplanets Science in Italy