# **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

rt of Contributions HONEI: the HOt-NEptune Initiative

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)

PLATO: an ESA mission to discov...

Invited talk

Presenter: NASCIMBENI, Valerio (INAF-OAPD)

Session Classification: Future Instruments and Technologies for Exoplanet Science

Ariel

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

A look to the future: the HWO mi...

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 - JEts 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