## 23rd GAPS Meeting

## **Report of Contributions**

Contribution ID: 1 Type: not specified

### **Board Updates**

Tuesday 28 October 2025 09:10 (15 minutes)

Presenter: BENATTI, Serena

Session Classification: General themes

Contribution ID: 2 Type: not specified

### **Updates on GAPS papers**

Tuesday 28 October 2025 09:25 (15 minutes)

Presenter: BIAZZO, Katia

Session Classification: General themes

Contribution ID: 3 Type: not specified

#### Welcome

Tuesday 28 October 2025 09:00 (5 minutes)

Welcome - Dott.ssa Maria Elisabetta Palumbo (Direttrice INAF-OACT)

Presenter: PALUMBO, Maria Elisabetta

Session Classification: General themes

Contribution ID: 4 Type: **not specified** 

## Report junior

Tuesday 28 October 2025 09:40 (10 minutes)

Presenter: DI MAIO, Claudia

**Session Classification:** General themes

Contribution ID: 5 Type: **not specified** 

## The NOCTIS project and its role in studying exoplanets

Tuesday 28 October 2025 09:50 (15 minutes)

Presenter: BASILICATA, Mario

Session Classification: General themes

Contribution ID: 6 Type: **not specified** 

## GAPS in support of Ariel: stellar obliquity and constraints on planet migration

Tuesday 28 October 2025 10:15 (15 minutes)

Presenter: BOCCHIERI, Andrea

Session Classification: General themes

Contribution ID: 7 Type: **not specified** 

## Status of the program

Tuesday 28 October 2025 11:00 (20 minutes)

**Presenters:** BONOMO, Aldo S.; BORSA, Francesco

**Session Classification:** ATMOSPHERES/BRIDGES

Contribution ID: 8 Type: not specified

# Stellar Abundance Ratios as diagnostics for Exoplanet Characterization

Tuesday 28 October 2025 11:20 (15 minutes)

Presenters: BIAZZO, Katia; BARATELLA, Martina

**Session Classification:** ATMOSPHERES/BRIDGES

Contribution ID: 9 Type: **not specified** 

## The never ending story between Giano-b and HD209458b

Tuesday 28 October 2025 11:35 (15 minutes)

Presenter: GIACOBBE, Paolo

**Session Classification:** ATMOSPHERES/BRIDGES

Contribution ID: 10 Type: not specified

## Linking disequilibrium chemistry models and observations for HD 209458 b

Tuesday 28 October 2025 11:50 (20 minutes)

**Presenter:** DE AZEVEDO SILVA, Tomas

Session Classification: ATMOSPHERES/BRIDGES

Contribution ID: 11 Type: not specified

#### Multi-instrument atmospheric characterization of the warm super-Neptune WASP-107 b using GUIBRUSH

Tuesday 28 October 2025 12:10 (15 minutes)

Presenter: AMADORI, Francesco

**Session Classification:** ATMOSPHERES/BRIDGES

Contribution ID: 12 Type: not specified

## Updates on the first investigation of the atmosphere of WASP-13 b with GIARPS

Tuesday 28 October 2025 12:25 (20 minutes)

Presenters: SICILIA, Daniela; BASILICATA, Mario

**Session Classification:** ATMOSPHERES/BRIDGES

Contribution ID: 13 Type: not specified

## Beyond LTE: Probing the Extreme Atmosphere of KELT-9 b

Tuesday 28 October 2025 12:45 (15 minutes)

**Presenter:** DI PAOLA, Alessia

**Session Classification:** ATMOSPHERES/BRIDGES

Contribution ID: 14 Type: **not specified** 

## Disentangling Planetary and Aliasing Signals in the CCF Analysis of KELT-20b/MASCARA-2b

Tuesday 28 October 2025 14:00 (15 minutes)

Presenter: BIASSONI, Federico

Session Classification: ATMOSPHERES/BRIDGES

Contribution ID: 15 Type: not specified

### Updates on V1298 Tau b

Tuesday 28 October 2025 14:15 (15 minutes)

Presenter: GUILLUY, Gloria

**Session Classification:** ATMOSPHERES/BRIDGES

Contribution ID: 16 Type: not specified

#### Discussion

**Session Classification:** ATMOSPHERES/BRIDGES

Contribution ID: 17 Type: not specified

### **HARPS-N Updates**

Tuesday 28 October 2025 14:45 (15 minutes)

Presenter: COSENTINO, Rosario

Session Classification: Instrumentation

Contribution ID: 18 Type: not specified

### **GIANO-B/GIARPS updates**

Tuesday 28 October 2025 15:00 (15 minutes)

**Presenter:** HARUTYUNYAN, Avet

Session Classification: Instrumentation

Contribution ID: 19 Type: not specified

#### **LOCNES**

Tuesday 28 October 2025 15:15 (15 minutes)

Presenter: CLAUDI, Riccardo

Session Classification: Instrumentation

Contribution ID: 20 Type: not specified

#### **Status of the Observations**

Tuesday 28 October 2025 15:30 (15 minutes)

**Presenter:** CLAUDI, Riccardo

Session Classification: Instrumentation

Contribution ID: 21 Type: not specified

### RV jitter in the whole GAPS sample

Tuesday 28 October 2025 15:45 (15 minutes)

Presenter: CLAUDI, Riccardo

Session Classification: Instrumentation

Contribution ID: 22 Type: not specified

## Status of the program

Wednesday 29 October 2025 09:00 (15 minutes)

Presenter: DESIDERA, Silvano

Session Classification: Young Objects

Contribution ID: 23 Type: not specified

### **Updates on V1298 Tau**

Wednesday 29 October 2025 09:15 (15 minutes)

Presenters: DAMASSO, Mario; LEONARDI, Pietro

Session Classification: Young Objects

Contribution ID: 24 Type: not specified

#### **HARPS+NIRPS** observations of DS Tuc

Wednesday 29 October 2025 09:30 (15 minutes)

Presenter: DAMASSO, Mario

Session Classification: Young Objects

Contribution ID: 25 Type: not specified

## **PASTAR: Spot Modeling with Photometric Data**

Wednesday 29 October 2025 09:45 (15 minutes)

Presenter: PETRALIA, Antonino

Session Classification: Young Objects

Contribution ID: 26 Type: not specified

## Activity indicators from Ariel spectra through PASTAR grid

Wednesday 29 October 2025 10:00 (15 minutes)

Presenter: DI MAIO, Claudia

**Session Classification:** Young Objects

Contribution ID: 27 Type: not specified

#### Discussion

Wednesday 29 October 2025 10:15 (15 minutes)

Session Classification: Young Objects

Contribution ID: 28 Type: not specified

### Status of the program

Wednesday 29 October 2025 11:00 (30 minutes)

Presenter: BENATTI, Serena

**Session Classification:** Ariel Masses Survey (ArMS):

Contribution ID: 29 Type: not specified

### **Status of AMS18**

Wednesday 29 October 2025 11:30 (15 minutes)

**Presenter:** FARDELLA, Valerio

**Session Classification:** Ariel Masses Survey (ArMS):

Contribution ID: 30 Type: not specified

#### **Status of AMS20**

Wednesday 29 October 2025 11:45 (15 minutes)

Presenter: DI MAIO, Claudia

**Session Classification:** Ariel Masses Survey (ArMS):

Contribution ID: 31 Type: not specified

#### **Status of YO46**

Wednesday 29 October 2025 12:00 (15 minutes)

Presenter: DAMASSO, Mario

**Session Classification:** Ariel Masses Survey (ArMS):

Contribution ID: 32 Type: not specified

### **Vetting of TESS candidates for Ariel**

Wednesday 29 October 2025 12:30 (15 minutes)

Presenter: PICCININI, Giulia

**Session Classification:** Ariel Masses Survey (ArMS):

Contribution ID: 33 Type: not specified

## Principal component analysis to correct TESS systematics

Wednesday 29 October 2025 12:15 (15 minutes)

Presenter: PETRALIA, Antonino

**Session Classification:** Ariel Masses Survey (ArMS):

Contribution ID: 34 Type: not specified

#### Discussion

Wednesday 29 October 2025 12:45 (15 minutes)

**Session Classification:** Ariel Masses Survey (ArMS):

Contribution ID: 35 Type: not specified

### **GFU Program Status**

Wednesday 29 October 2025 14:00 (15 minutes)

Presenter: SOZZETTI, Alessandro

Session Classification: Gaia Follow up

Contribution ID: 36 Type: not specified

# **Specific Systems: GFU02**

Wednesday 29 October 2025 14:15 (10 minutes)

Specific Systems: GFU02

Presenter: PICCININI, Giulia

Session Classification: Gaia Follow up

Contribution ID: 37 Type: not specified

# **Specific Systems: GFU07**

Wednesday 29 October 2025 14:25 (10 minutes)

Specific Systems: GFU07

Presenter: RUGGIERI, Alessandro

Session Classification: Gaia Follow up

Contribution ID: 38 Type: not specified

# **Specific Systems: GFU08**

Wednesday 29 October 2025 14:35 (10 minutes)

Specific Systems: GFU08

Presenter: PINAMONTI, Matteo

Session Classification: Gaia Follow up

Contribution ID: 39 Type: not specified

# **Specific Systems: GFU25**

Wednesday 29 October 2025 14:45 (10 minutes)

Specific Systems: GFU25

Presenter: DAMASSO, Mario

Session Classification: Gaia Follow up

Contribution ID: 40 Type: not specified

# Detection completeness and follow-up potential of Gaia DR3 confirmed substellar companions

Wednesday 29 October 2025 14:55 (10 minutes)

Presenter: BARBATO, Domenico

Session Classification: Gaia Follow up

Type: not specified

Contribution ID: 41

# Gaia DR3 substellar companions around nearby M dwarfs: completeness and reliability in the 100pc sample

Wednesday 29 October 2025 15:05 (10 minutes)

Presenter: PINAMONTI, Matteo

Session Classification: Gaia Follow up

Contribution ID: 42 Type: not specified

# New Gaia candidates follow-up: Some considerations

Wednesday 29 October 2025 15:15 (10 minutes)

Presenter: SOZZETTI, Alessandro

Session Classification: Gaia Follow up

Contribution ID: 43 Type: not specified

#### Discussion

Wednesday 29 October 2025 15:25 (5 minutes)

Session Classification: Gaia Follow up

Contribution ID: 44 Type: **not specified** 

#### Discussion

**Session Classification:** ATMOSPHERES/BRIDGES

Contribution ID: 45 Type: **not specified** 

#### Status of the HONEI and SO programs

Wednesday 29 October 2025 16:00 (25 minutes)

Presenter: NAPONIELLO, Luca

Session Classification: Neptunian planets

Contribution ID: 46 Type: not specified

# TOI-5789: A multiplanet and mutually inclined system

Wednesday 29 October 2025 16:25 (20 minutes)

Presenter: BONOMO, Aldo S.

Session Classification: Neptunian planets

Contribution ID: 47 Type: **not specified** 

#### Discussion

Wednesday 29 October 2025 16:45 (30 minutes)

**Session Classification:** Neptunian planets

Contribution ID: 48 Type: not specified

# Proposal for AOT53: Probing systems with meaningful TTVs

Thursday 30 October 2025 09:00 (20 minutes)

Presenter: NAPONIELLO, Luca

Session Classification: General themes

Contribution ID: 49 Type: not specified

#### Feedback on TNG observations

Thursday 30 October 2025 09:20 (15 minutes)

Presenter: COSENTINO, Rosario

Session Classification: General themes

Contribution ID: 50 Type: not specified

### Attività UTG-A

Thursday 30 October 2025 09:45 (10 minutes)

**Presenter:** MICELA, Giusi

**Session Classification:** General themes

Contribution ID: 51 Type: not specified

#### Bandi di Astrofisica di Frontiera

Thursday 30 October 2025 09:55 (35 minutes)

Session Classification: General themes

Contribution ID: **52** Type: **not specified** 

# Bandi di Astrofisica di Frontiera (cont.) & Next activities of the Exoplanets community

Thursday 30 October 2025 11:00 (2 hours)

Session Classification: General themes

Contribution ID: 53 Type: not specified

#### **Software introduction**

Monday 27 October 2025 09:30 (10 minutes)

**Presenter:** GIACOBBE, Paolo

Session Classification: GUI-BRUSH: Hands-on session

Contribution ID: 54 Type: **not specified** 

# Working environment and hands-on program of the day

Monday 27 October 2025 09:40 (10 minutes)

**Presenter:** AMADORI, Francesco

Session Classification: GUI-BRUSH: Hands-on session

Contribution ID: 55 Type: not specified

#### Software installation and initialization procedures

Monday 27 October 2025 09:50 (1 hour)

Presenter: AMADORI, Francesco

Session Classification: GUI-BRUSH: Hands-on session

Contribution ID: 56 Type: not specified

# Data reduction and calibration GIANO (from archive to GUIBRUSH) & Tellurics removal

Monday 27 October 2025 11:00 (1 hour)

Presenters: AMADORI, Francesco; GIACOBBE, Paolo

Session Classification: GUI-BRUSH: Hands-on session

Contribution ID: 57 Type: not specified

### Introduction of forward modeling for CC

Monday 27 October 2025 14:00 (10 minutes)

**Presenter:** GIACOBBE, Paolo

Session Classification: GUI-BRUSH: Hands-on session

Contribution ID: 58 Type: not specified

### Forward Modelling & Cross Correlation Technique

Monday 27 October 2025 14:10 (1 hour)

Presenters: AMADORI, Francesco; GIACOBBE, Paolo

Session Classification: GUI-BRUSH: Hands-on session

Contribution ID: **59** Type: **not specified** 

### Introduction of forward modeling for retrievals

Monday 27 October 2025 15:20 (10 minutes)

Presenter: GIACOBBE, Paolo

Session Classification: GUI-BRUSH: Hands-on session

Contribution ID: 60 Type: not specified

### High and low resolution retrieval

Monday 27 October 2025 15:30 (1 hour)

Session Classification: GUI-BRUSH: Hands-on session

Contribution ID: 61 Type: not specified

### **Updates from TNG**

Tuesday 28 October 2025 14:30 (15 minutes)

Presenter: GHEDINA, Adriano

Session Classification: Instrumentation

Contribution ID: **62** Type: **not specified** 

# Celebrating the 30th anniversary of the first exoplanet discovered

Tuesday 28 October 2025 10:05 (10 minutes)

Presenter: SICILIA, Daniela

Session Classification: General themes

Contribution ID: 63 Type: not specified

#### Welcome

Tuesday 28 October 2025 09:05 (5 minutes)

Saluti Istituzionali da parte della Direzione Scientifica (Dr. I. Pagano)

Presenter: PAGANO, Isabella

Session Classification: General themes

Contribution ID: 64 Type: not specified

#### Discussion

Thursday 30 October 2025 09:35 (10 minutes)

**Session Classification:** General themes