

# **21st GAPS Progress Meeting**

## **Report of Contributions**

Contribution ID: 1

Type: **not specified**

## Greetings and introduction

*Wednesday 27 November 2024 14:00 (10 minutes)*

**Presenters:** BORSA, Francesco (Istituto Nazionale di Astrofisica (INAF)); RAINER, Monica (Istituto Nazionale di Astrofisica (INAF))

**Session Classification:** General themes

Contribution ID: 2

Type: **not specified**

## Updates from GAPS Board

*Wednesday 27 November 2024 14:10 (15 minutes)*

**Presenter:** BONOMO, Aldo Stefano (Istituto Nazionale di Astrofisica (INAF))

**Session Classification:** General themes

Contribution ID: 3

Type: **not specified**

## Updates from TNG

*Wednesday 27 November 2024 14:25 (10 minutes)*

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

**Session Classification:** General themes

Contribution ID: 4

Type: **not specified**

## The new HARPS-N pipeline

*Wednesday 27 November 2024 14:35 (20 minutes)*

**Presenter:** COSENTINO, Rosario (Istituto Nazionale di Astrofisica (INAF))

**Session Classification:** General themes

Contribution ID: 5

Type: **not specified**

## **Gofio updates**

*Wednesday 27 November 2024 14:55 (20 minutes)*

**Presenter:** RAINER, Monica (Istituto Nazionale di Astrofisica (INAF))

**Session Classification:** General themes

Contribution ID: 6

Type: **not specified**

## Status of observations

*Wednesday 27 November 2024 15:15 (10 minutes)*

**Presenter:** CLAUDI, Riccardo (Istituto Nazionale di Astrofisica (INAF))

**Session Classification:** General themes

Contribution ID: 7

Type: **not specified**

## **GAPS publications: status and lessons**

*Wednesday 27 November 2024 15:25 (15 minutes)*

**Presenter:** DESIDERA, Silvano (Istituto Nazionale di Astrofisica (INAF))

**Session Classification:** General themes



Contribution ID: 8

Type: **not specified**

## Discussion

*Wednesday 27 November 2024 15:40 (20 minutes)*

**Session Classification:** General themes

Contribution ID: 9

Type: **not specified**

## HRMOS

*Wednesday 27 November 2024 17:25 (20 minutes)*

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

**Session Classification:** General themes

Contribution ID: **10**

Type: **not specified**

## **Towards a multi-technique reassessment of exoplanetary demographics**

*Wednesday 27 November 2024 16:30 (20 minutes)*

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

**Session Classification:** General themes

Contribution ID: 11

Type: **not specified**

## **SISSI: Spectrophotometric Investigation of Stellar Surface Irregularities**

*Wednesday 27 November 2024 16:50 (10 minutes)*

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

**Session Classification:** General themes

Contribution ID: 12

Type: **not specified**

## **SISSI Database for STILES: Impact of the stellar activity on stellar spectra**

*Wednesday 27 November 2024 17:00 (10 minutes)*

**Presenter:** Dr DI MAIO, Claudia (Istituto Nazionale di Astrofisica (INAF))

**Session Classification:** General themes

Contribution ID: 13

Type: **not specified**

## Radial velocity Jitter for GAPS Targets

*Wednesday 27 November 2024 17:10 (15 minutes)*

**Presenter:** CLAUDI, Riccardo (Istituto Nazionale di Astrofisica (INAF))

**Session Classification:** General themes

Contribution ID: 14

Type: **not specified**

## Discussion

*Wednesday 27 November 2024 17:45 (15 minutes)*

**Session Classification:** General themes

Contribution ID: 15

Type: **not specified**

## Introduction

*Thursday 28 November 2024 09:00 (15 minutes)*

**Presenters:** NASCIMBENI, Valerio (INAF-OAPD); BONOMO, Aldo Stefano (Istituto Nazionale di Astrofisica (INAF))

**Session Classification:** Planetary atmospheres



Contribution ID: 16

Type: **not specified**

## **Molecules on the dayside of WASP-76b with GIARPS@TNG**

*Thursday 28 November 2024 09:15 (15 minutes)*

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

**Session Classification:** Planetary atmospheres

Contribution ID: 17

Type: **not specified**

## **Detection of water and preliminary characterisation of the atmospheres of the two hot Jupiters KELT-8 b and KELT-23 Ab with GIANO-B**

*Thursday 28 November 2024 09:30 (15 minutes)*

**Presenter:** BASILICATA, Mario

**Session Classification:** Planetary atmospheres

Contribution ID: **18**

Type: **not specified**

## **Sodium survey: current status and future work**

*Thursday 28 November 2024 09:45 (15 minutes)*

**Presenter:** SICILIA, Daniela (Istituto Nazionale di Astrofisica (INAF))

**Session Classification:** Planetary atmospheres

Contribution ID: 19

Type: **not specified**

## **High and low resolution retrievals of exoplanetary atmospheres with HPC and GPU**

*Thursday 28 November 2024 10:15 (20 minutes)*

**Presenters:** GIACOBBE, Paolo (Istituto Nazionale di Astrofisica (INAF)); GUILLUY, Gloria (Istituto Nazionale di Astrofisica (INAF))

**Session Classification:** Planetary atmospheres

Contribution ID: 20

Type: **not specified**

# **Chemical Disequilibrium in Exoplanet Atmospheres: A High-Resolution Simulation Approach**

*Thursday 28 November 2024 11:35 (20 minutes)*

**Presenter:** AZEVEDO SILVA, Tomas (Istituto Nazionale di Astrofisica (INAF))

**Session Classification:** Planetary atmospheres

Contribution ID: 21

Type: **not specified**

## **C/O ratio of KELT-9b**

*Thursday 28 November 2024 10:00 (15 minutes)*

**Presenters:** D'ARPA, Mattia; BORSA, Francesco (Istituto Nazionale di Astrofisica (INAF)); FOSSATI, Luca

**Session Classification:** Planetary atmospheres

Contribution ID: 22

Type: **not specified**

## **Helium in the atmosphere of V1298 Tau b**

*Thursday 28 November 2024 11:00 (15 minutes)*

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

**Session Classification:** Planetary atmospheres

Contribution ID: 23

Type: **not specified**

## **Atmospheric characterisation of TOI-1518b**

*Thursday 28 November 2024 11:15 (20 minutes)*

**Presenters:** BIASSONI, Federico; D'ARPA, Mattia

**Session Classification:** Planetary atmospheres



Contribution ID: 24

Type: **not specified**

## Discussion

*Thursday 28 November 2024 11:55 (20 minutes)*

**Session Classification:** Planetary atmospheres

Contribution ID: 25

Type: **not specified**

## ArMS Status and Updates

*Thursday 28 November 2024 13:45 (15 minutes)*

**Presenter:** Dr BENATTI, Serena (Istituto Nazionale di Astrofisica (INAF))

**Session Classification:** Parameters of transiting planets

Contribution ID: 26

Type: **not specified**

## **Status of AMS01 & AMS18**

*Thursday 28 November 2024 14:00 (15 minutes)*

**Presenter:** FARDELLA, Valerio

**Session Classification:** Parameters of transiting planets

Contribution ID: 27

Type: **not specified**

## **Status of AMS13 = YO47**

*Thursday 28 November 2024 14:15 (10 minutes)*

**Presenter:** FILOMENO, Simone

**Session Classification:** Parameters of transiting planets

Contribution ID: **28**

Type: **not specified**

## **Status of AMS20**

*Thursday 28 November 2024 14:25 (10 minutes)*

**Presenter:** Dr DI MAIO, Claudia (Istituto Nazionale di Astrofisica (INAF))

**Session Classification:** Parameters of transiting planets

Contribution ID: 29

Type: **not specified**

## **Status of AMS25 = SO19**

*Thursday 28 November 2024 14:35 (10 minutes)*

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

**Session Classification:** Parameters of transiting planets

Contribution ID: **30**

Type: **not specified**

## Discussion

*Thursday 28 November 2024 14:45 (10 minutes)*

**Session Classification:** Parameters of transiting planets

Contribution ID: 31

Type: **not specified**

## **General summary of GAPS-YO program / open points**

*Thursday 28 November 2024 14:55 (20 minutes)*

**Presenters:** Dr BENATTI, Serena (Istituto Nazionale di Astrofisica (INAF)); DESIDERA, Silvano (Istituto Nazionale di Astrofisica (INAF))

**Session Classification:** Parameters of transiting planets



Contribution ID: 32

Type: **not specified**

## **Activity-based and kinematic tools to estimate the ages of planet-hosting stars**

*Thursday 28 November 2024 15:15 (15 minutes)*

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

**Session Classification:** Parameters of transiting planets

Contribution ID: **33**

Type: **not specified**

## **TOI-5734**

*Thursday 28 November 2024 15:30 (10 minutes)*

**Presenter:** FILOMENO, Simone

**Session Classification:** Parameters of transiting planets

Contribution ID: **34**

Type: **not specified**

## **Kepler-63**

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

**Session Classification:** Parameters of transiting planets

Contribution ID: 35

Type: **not specified**

## **New developments on the study of V1298 Tau system**

*Thursday 28 November 2024 15:40 (20 minutes)*

**Presenters:** DAMASSO, Mario (Istituto Nazionale di Astrofisica (INAF)); LEONARDI, Pietro

**Session Classification:** Parameters of transiting planets

Contribution ID: **36**

Type: **not specified**

## **DS Tuc**

*Thursday 28 November 2024 16:30 (15 minutes)*

**Presenter:** RUGGIERI, Alessandro (Istituto Nazionale di Astrofisica (INAF))

**Session Classification:** Parameters of transiting planets

Contribution ID: 37

Type: **not specified**

## Discussion

*Thursday 28 November 2024 16:45 (20 minutes)*

**Session Classification:** Parameters of transiting planets

Contribution ID: **38**

Type: **not specified**

## **Status of GFU program e articolo conferma/smentita candidati**

*Friday 29 November 2024 09:00 (20 minutes)*

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

**Session Classification:** Gaia Follow Up

Contribution ID: **39**

Type: **not specified**

## **Candidati di breve periodo**

*Friday 29 November 2024 09:20 (10 minutes)*

**Presenter:** Dr SOZZETTI, Alessandro (Istituto Nazionale di Astrofisica (INAF))

**Session Classification:** Gaia Follow Up



Contribution ID: 40

Type: **not specified**

## **HD 50554/KP57/TOI-6965**

*Friday 29 November 2024 09:30 (10 minutes)*

**Presenter:** DESIDERA, Silvano (Istituto Nazionale di Astrofisica (INAF))

**Session Classification:** Gaia Follow Up

Contribution ID: 41

Type: **not specified**

## SO14

*Friday 29 November 2024 09:40 (10 minutes)*

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

**Session Classification:** Gaia Follow Up

Contribution ID: 42

Type: **not specified**

## Statistical analysis of KP+ sample

*Friday 29 November 2024 09:50 (20 minutes)*

**Presenter:** RUGGIERI, Alessandro (Istituto Nazionale di Astrofisica (INAF))

**Session Classification:** Gaia Follow Up

Contribution ID: 43

Type: **not specified**

## Discussion

*Friday 29 November 2024 10:10 (20 minutes)*

**Session Classification:** Gaia Follow Up

Contribution ID: 44

Type: **not specified**

## **GAPS-2 SO Neptunes**

*Thursday 28 November 2024 17:05 (20 minutes)*

**Presenter:** Dr SOZZETTI, Alessandro (Istituto Nazionale di Astrofisica (INAF))

**Session Classification:** Parameters of transiting planets

Contribution ID: 45

Type: **not specified**

## **The HARPS-N Hot-Neptune Initiative: Status and Perspectives**

*Thursday 28 November 2024 17:25 (20 minutes)*

**Presenters:** MANNI, Francesca; NAPONIELLO, Luca (Istituto Nazionale di Astrofisica (INAF))

**Session Classification:** Parameters of transiting planets

Contribution ID: 46

Type: **not specified**

## Discussion

*Thursday 28 November 2024 17:45 (15 minutes)*

**Session Classification:** Parameters of transiting planets

Contribution ID: 47

Type: **not specified**

## HeI Survey: Updates and prospects

*Friday 29 November 2024 11:00 (10 minutes)*

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

**Session Classification:** Junior proposals



Contribution ID: 48

Type: **not specified**

## **Summary of AOT50 proposals and recent results from AOT48 and 49**

*Friday 29 November 2024 11:10 (15 minutes)*

**Presenter:** MANTOVAN, Giacomo

**Session Classification:** Junior proposals

Contribution ID: 49

Type: **not specified**

## **Rationale and status of the AOT50 proposal: Probing Helium depletion in outflowing atmospheres**

*Friday 29 November 2024 11:25 (10 minutes)*

**Presenter:** SPINELLI, Riccardo (Istituto Nazionale di Astrofisica (INAF))

**Session Classification:** Junior proposals

Contribution ID: 50

Type: **not specified**

## Discussion

*Friday 29 November 2024 11:35 (10 minutes)*

**Session Classification:** Junior proposals

Contribution ID: 51

Type: **not specified**

## **Preparation of ExoItaly2025: our view, needs, suggestions**

*Friday 29 November 2024 11:45 (45 minutes)*

**Presenter:** DESIDERA, Silvano (Istituto Nazionale di Astrofisica (INAF))

**Session Classification:** General themes