Program

27–29 Jan 2025

2nd Metis Science Meeting

Auditorium nazionale
Osservatorio Astronomico di Capodimonte, Napoli

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Monday 27 January

14:00 – 14:10
Welcome: Welcome
Session | **Location:** Auditorium nazionale, Osservatorio Astronomico di Capodimonte, Napoli | **Conveners:** Romoli, Marco, Schipani, Pietro, Esposito, Teresa

14:10 – 14:30
Metis Science: Metis status and science so far
Session | **Location:** Auditorium nazionale, Osservatorio Astronomico di Capodimonte, Napoli | **Conveners:** Susino, Roberto, Romoli, Marco

14:30 – 14:50
Metis Science: SWA status and science so far
Session | **Location:** Auditorium nazionale, Osservatorio Astronomico di Capodimonte, Napoli | **Convener:** D'Amicis, Raffaella

14:50 – 15:20
Metis Science: The Coupling of the Closed and Open Corona (Keynote)
Session | **Location:** Auditorium nazionale, Osservatorio Astronomico di Capodimonte, Napoli | **Convener:** Antiochos, Spiro

15:20 – 15:50
Metis Science: Forward models of white light emission from MHD simulations of reconnection outflows and coronal mass ejections
Session | **Location:** Auditorium nazionale, Osservatorio Astronomico di Capodimonte, Napoli | **Convener:** Wyper, Peter

15:50 – 16:10
Coffee break
Break

16:10 – 16:40
Metis Science: CME plasma diagnostics using Metis coronagraph
Session | **Location:** Auditorium nazionale, Osservatorio Astronomico di Capodimonte, Napoli | **Convener:** Jejčič, Sonja

16:40 – 17:10
Metis Science: High cadence and high resolution observation of a CME observed by Solar Orbiter Metis Coronagraph in October 2022
Session | **Location:** Auditorium nazionale, Osservatorio Astronomico di Capodimonte, Napoli | **Convener:** Russano, Giuliana

17:10 – 17:40
Metis Science: Unifying the Physical Understanding of CMEs through Remote Sensing Observations in the PSP/SolO Era
Session | **Location:** Auditorium nazionale, Osservatorio Astronomico di Capodimonte, Napoli | **Convener:** Liberatore, Alessandro

17:40 – 18:00
Metis Science: Preliminary Analysis of Recurrent and Confined Plasma Emission Observed by Metis on 5–6 October 2023
Session | **Location:** Auditorium nazionale, Osservatorio Astronomico di Capodimonte, Napoli | **Convener:** Romano, Paolo

Tuesday 28 January

09:00 – 09:30

Metis Science: Reconstructing the interplanetary propagation of the September 5, 2022 ICME event with a data-driven MHD simulation

Session | **Location:** Auditorium nazionale, Osservatorio Astronomico di Capodimonte, Napoli | **Convener:** Biondo, Ruggero

09:30 – 10:00

Metis Science: Metis Observations of Geoeffective Solar Events

Session | **Location:** Auditorium nazionale, Osservatorio Astronomico di Capodimonte, Napoli | **Convener:** Sahani, Preity Sukla

10:00 – 10:30

Metis Science: Applying Supervised Learning Methods for Metis Data Validation

Session | **Location:** Auditorium nazionale, Osservatorio Astronomico di Capodimonte, Napoli | **Convener:** Burtovoi, Aleksandr

10:30 – 10:50

Coffee break

Break

10:50 – 11:20

Metis Science: Detection and classification of comet-like objects in Metis coronagraph images using deep learning

Session | **Location:** Auditorium nazionale, Osservatorio Astronomico di Capodimonte, Napoli | **Convener:** Moualla, Lama

11:20 – 11:50

Metis Science: Monitoring the evolution of intense solar energetic particle events with the Solar Orbiter EPD-HET and Metis instruments

Session | **Location:** Auditorium nazionale, Osservatorio Astronomico di Capodimonte, Napoli | **Convener:** Grimani, Catia

11:50 – 12:20

Metis Science: Search in Metis images for structures related with energetic particle events

Session | **Location:** Auditorium nazionale, Osservatorio Astronomico di Capodimonte, Napoli | **Convener:** Michailidis, Angelos

12:20 – 12:40

Metis Science: Helium emission in eruptive prominences

Session | **Location:** Auditorium nazionale, Osservatorio Astronomico di Capodimonte, Napoli | **Convener:** Heinzel, Petr

12:40 – 14:00

Lunch Break

Break

14:00 – 14:30

Metis Science: Observations of Polar Plumes with Metis Coronagraph

Session | **Location:** Auditorium nazionale, Osservatorio Astronomico di Capodimonte, Napoli | **Convener:** Zangrilli, Luca

14:30

Metis Science - Short communications: Compact downflows in open-field regions observed by Metis during the fourth Solar Orbiter perihelion

Session | **Location:** Auditorium nazionale, Osservatorio Astronomico di Capodimonte, Napoli | **Convener:** Andretta, Vincenzo

Description

Short communications on works just started, or outlines for future works

14:50

14:50

Metis Science - Short communications: 3-Dimensional reconstruction of the thermal X-ray emission in solar flares

Session | **Location:** Auditorium nazionale, Osservatorio Astronomico di Capodimonte, Napoli | **Convener:** Palumbo, Barbara

Description

Short communications on works just started, or outlines for future works

15:10

15:10

Coffee break

Break

15:30

15:30

Metis & Friends: PROBA3 science overview (Invited)

Session | **Location:** Auditorium nazionale, Osservatorio Astronomico di Capodimonte, Napoli | **Convener:** Zhukov, Andrei

16:00

16:00

Metis & Friends: CODEX Perspectives for Joint Science with Metis, ASPIICS

Session | **Location:** Auditorium nazionale, Osservatorio Astronomico di Capodimonte, Napoli | **Convener:** Fineschi, Silvano

16:30

16:30

Metis & Friends: ASPIICS-Metis science planning proposals: future possibilities for CME observations

Session | **Location:** Auditorium nazionale, Osservatorio Astronomico di Capodimonte, Napoli | **Convener:** Amato, Emanuele

16:45

16:45

Metis & Friends: PROBA3-Metis science planning proposals

Session | **Location:** Auditorium nazionale, Osservatorio Astronomico di Capodimonte, Napoli

17:00

17:00

Metis & Friends: CODEX planning proposals

Session | **Location:** Auditorium nazionale, Osservatorio Astronomico di Capodimonte, Napoli

17:20

20:00

Dinner

Break

23:00

Wednesday 29 January

09:00 – 09:30
Metis & Friends: News on MUSE
Session | **Location:** Auditorium nazionale, Osservatorio Astronomico di Capodimonte, Napoli | **Convener:** Reale, Fabio

09:30 – 10:00
Metis & Friends: The ultimate EUV solar spectrometer: SOLAR-C/EUVST
Session | **Location:** Auditorium nazionale, Osservatorio Astronomico di Capodimonte, Napoli | **Convener:** Andretta, Vincenzo

10:00 – 10:30
Metis & Friends: The European Solar Telescope: Current Status and Scientific Potential (Invited)
Session | **Location:** Auditorium nazionale, Osservatorio Astronomico di Capodimonte, Napoli | **Convener:** Berrilli, Francesco

10:30 – 11:00
Metis & Friends: IBIS 2.0 Interferometric BIdimensional Spectrometer 2.0: overview and current status
Session | **Location:** Auditorium nazionale, Osservatorio Astronomico di Capodimonte, Napoli | **Convener:** Ermolli, Ilaria

11:00 – 11:20
Coffee break
Break

11:20 – 11:50
Metis & Friends: Radio facilities for Solar and Heliospheric Physics (Invited)
Session | **Location:** Auditorium nazionale, Osservatorio Astronomico di Capodimonte, Napoli | **Convener:** Pellizzoni, Alberto Paolo

11:50 – 12:20
Metis & Friends: HPC for the Italian Solar Physics Community (Invited)
Session | **Location:** Auditorium nazionale, Osservatorio Astronomico di Capodimonte, Napoli | **Convener:** Pagano, Paolo

12:20 – 12:50
Metis & Friends: Machine Learning e Artificial Intelligence applied to Solar and Heliospheric Physics (Invited)
Session | **Location:** Auditorium nazionale, Osservatorio Astronomico di Capodimonte, Napoli | **Convener:** piana, michele

12:50 – 14:00
Lunch Break
Break

14:00 – 14:15
Metis Science: POSTPONED: Contribution to the pyCID GUI: a semi-automatic CME detection tool
Session | **Location:** Auditorium nazionale, Osservatorio Astronomico di Capodimonte, Napoli | **Convener:** Napoletano, Gianluca

14:15 – 14:35

Metis & Friends - Possible joint science cases: Synergies in high-resolution observations of the solar atmosphere to investigate small- to intermediate-scale energy release events

Session | **Location:** Auditorium nazionale, Osservatorio Astronomico di Capodimonte, Napoli | **Convener:** Guglielmino, Salvatore Luigi

14:35 – 15:15

Metis & Friends - Possible joint science cases: Discussion

Session | **Location:** Auditorium nazionale, Osservatorio Astronomico di Capodimonte, Napoli

15:15 – 15:45

Coffee break

Break

15:45 – 17:15

Final discussion: future activities, synergies

Session | **Location:** Auditorium nazionale, Osservatorio Astronomico di Capodimonte, Napoli