Day 1 — TUESDAY 21

12:00 – 13:50	🍝 **Welcome lunch**
13:50 – 14:00	Welcome & introduction
	Session 1: "Simulations and neural networks in adaptive optics"
14:00 – 14:30	**Fabio Rossi** "SPECULA: the Italian effort to advance end-to-end simulations in Adaptive Optics"
14:30 – 15:00	**Pietro Ferraiuolo** "OPTICALIB: A Python Framework for Adaptive Optics Experimentation"
15:00 – 15:30	**Ivan Agostinelli** "AI Optimization for Sensorless Adaptive Optics"
15:30 – 16:00	☕ **Coffee Break**
16:00 – 16:30	**Elena Masciadri** "Optical Turbulence Forecast: challenges for the next-generation ground-based astronomy and for the free-space optical communication (FSOC)"
16:30 – 17:00	**Camilo German Weinberger Cerro** "Neural networks applied to forecasting the astroclimatic parameters in an operational context"
17:00 – 18:00	**Panel discussion 1: Adaptive Optics @ LBT**

Day 2 — WEDNESDAY 22

Session 2: “Techniques for PSF reconstruction”

09:30 – 10:00	**Andrea Grazian** “Towards First Light for MICADO: the PSF Reconstruction Software”
10:00 – 10:30	**Gianluca Li Causi** “The SHARK-VIS experience in post-AO high-resolution and high-contrast imaging in visible band as a sandbox for playing with WFS telemetry and deconvolution”
10:30 – 11:00	**Davide Greggio, Taïssir Heritie** “EKARUS: A new Adaptive Optics R&D Platform at the Asiago Observatory”
11:00 – 11:30	☕ **Coffee Break**

Session 3: “Development of new technologies for AO”

11:30 – 12:00	**Armando Riccardi “**Ideas for transmissive wavefront corrector developments for enhancing wide field adaptive optics**”**
12:00 – 12:30	**Massimo Brescia “**AIO: Adaptive Intelligent Optics**”**
12:30 – 13:00	**Stefano Bonora** “Stack of deformable lenses for multi-conjugate adaptive optics”
13:00 – 14:30	🍝 **Lunch Break**
14:30 – 15:00	**Gianluca Di Rico** “ORCAS a new space orbiting guide star”
15:00 – 16:00	**Panel discussion 2: Adaptive Optics @ INAF**
16:00 – 16:30	**Bus to Monte Mario Observatory**
17:30 – 21:00	**Visit to the Copernican Museum + social aperitif and dinner**
21:00 - 21:15	**Bus back to Rome**

Day 3 — THURSDAY 23

Session 4: “Future instrumentation for ground-based AO observations”

09:30 – 10:00 **Simone Sacquegna, Benedetta di Francesco** “Convolutional neural network for the PSF subtraction in high contrast imaging”

10:00 – 10:30 **Elia Costa** “EKARUS at Asiago Observatory: Design and Implementation of the Instrument Control Software”

10:30 – 11:00 **Tania Sofia Gomes Machado** “The New Ingot WFS Optical Test Bench”

11:00 – 11:30 ☕ **Coffee Break**

Session 5: “Future instrumentation for ground-based AO observations”

11:30 – 12:00 **Remon Sjoerd Van Gaalen** “NirvanaVIS: AO-Assisted Wide Field Speckle Imaging at LBT”

12:00 – 12:30 **Carmelo Arcidiacono** “Speckle Reconstruction Techniques for High-Resolution Visible Imaging”

12:30 – 13:00 **Oleksandra Rebrysh** “Final optical design of the adaptive optics module of MAVIS”

13:00 – 14:30 🍝 **Lunch Break**

Session 6: “Science with AO: What Is Needed for the Future”

14:30 – 15:00 **Chiara Di Prospero** “Prototyping activities of the MORFEO Soft Real-Time Computer”

15:00 – 15:30 **Luciano Antonio Corubolo “**Static adaptive correction to compensate for non-axisymmetric wavefront distortions in next-generation gravitational wave detectors**”**

15:30 – 16:00 **Matteo Menessini** “Integrated modeling and analysis of high order active segmented mirrors for space telescopes”

16:00 – 16:30 **Armin Schimpf** “Current challenges in Adaptive Optics at Bertin Alpao”

16:30 – 17:00 ☕ **Coffee Break**

17:00 – 18:00 **Panel discussion 3: Habitable Worlds Observatory**

Day 4 — FRIDAY 24

09:00 – 09:30 🥐 **Breakfast**

Session 7: "Science with AO: What Is Needed for the Future"

09:30 – 10:00 **Paolo Saracco** "SHARP: a next-generation near-IR spectrograph conceived for the ESO-ELT"

10:00 – 10:30 **Alessandro Ballone** "Design and early implementation of the MCAO MATTO bench"

10:30 – 11:00 **Simone Lombardi** "The ADONI-ET Optical Test Bench experiment. Part of a feasibility study for closed-loop adaptive thermal compensation in gravitational wave detectors"

11:00 – 11:30 ☕ **Coffee Break**

11:30 – 12:00 **Cédric Antoine Adrien Gabriel Plantet** "Petaling on the ELT: mitigation strategy for MORFEO"

12:00 – 12:30 **Talk by Roberto Ragazzoni, INAF President**

12:30 – 13:00 **Wrap up**

13:00 – 14:30 🍝 **Lunch break**

Useful informations

📍 **Venue:**
Centro Congressi Frentani,
Via dei Frentani, 4, 00185 Roma RM

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