AO4ELT8 PROGRAM AT A GLANCE

Time	Monday	Tuesday	Wednesday	Thursday	Friday	Time
8:00-8:30	REGISTRATION	REGISTRATION	REGISTRATION	REGISTRATION	REGISTRATION	8:00-8:30
8:30-9:30		WAVEFRONT RECONSTRUCTION AND CONTROL I	AO PATHFINDERS AND NEW CONCEPTS	DEEP LEARNING FOR AO	TURBULENCE CHARACTERIZATION AND PROFILLING	8:30-10:15
9:30-10:00	OPENING CEREMONY					
10:00-10:35	PLENARY 1					
10:35-11:05	COFFEE BREAK	Coffee Break + Exhibition			BRUNCH POSTER SESSION EXHIBITION	10:15-11:55
11:05-13:10	CURRENT DESIGNS OF ELT AO SYSTEMS I	POST PROCESSING WITH AO DATA	CURRENT DESIGNS OF ELT AO SYSTEMS II	WAVEFRONT SENSING	AO SIMULATION	11:55-14:00
13:10-14:30	Lunch Break	Lunch Break	Lunch Break	Lunch Break		
14:30-16:40	ELT SCIENCE WITH AO I	ELT AO SYSTEMS	WAVEFRONT RECONSTRUCTION AND CONTROL II	WAVEFRONT CORRECTION	COFFEE BREAK	14:00-14:30
		PLENARY 2	PLENARY 3	PLENARY 4	ELT SCIENCE WITH AO II	14:30-16:35
16:40-18:00	COFFEE POSTER SESSION EXHIBITION	COFFEE POSTER SESSION EXHIBITION	COFFEE POSTER SESSION EXHIBITION	COFFEE POSTER SESSION EXHIBITION	CLOSING REMARKS	16:35-17:00
18:30-20:30	RECEPTION	ALPAO RECEPTION *by invitation only	BANQUET	VALPO TOUR		19:30-00:30

MONDAY

8:00 - 9:30	REGISTRATION
	Session 0 AO4ELT
9:30 - 10:00	AO4ELT8 WELCOME Speaker: AO4ELT8 Chairs
10:00 - 10:35	PLENARY 1 The Adaptive Optics Renaissance Speaker: Jean-Pierre Veran, NRC
10:35 - 11:05	COFFEE BREAK
	Session 1 CURRENT DESIGNS OF ELT AO SYSTEMS 1 Presider: Pascale Hibon
11:05 - 11:30	ANDES, the high resolution spectrograph for the ELT: the AO system Speaker: Chiara Selmi , INAF
11:30 - 11:50	Towards the definition of ANDES-SCAO control strategy and expected performance through E2E simulations: aiming at high-resolution spectroscopy with the ELT Speaker: Guido Agapito, INAF
11:50 - 12:10	Update on the ESO ELT optomechanics status Speaker: Elise Vernet, ESO
12:10 - 12:30	Status of the Diffraction-limited AO Science Instruments for the Giant Magellan Telescope Speaker: Gustavo Rahmer, GMTO
12:30 - 12:50	MORFEO: Advancing Towards Final Design Speaker: Lorenzo Busoni, INAF
12:50 - 13:10	European Solar Telescope: Adaptive Optics Preliminary Design Speaker: Esther Soria Hernández, IAC
13:10 - 14:30	LUNCH BREAK
	Session 2 ELT SCIENCE WITH AO I Presider: Gaetano Sivo
14:30 - 14:55	On-sky sub-diffraction measurement tests with photonic lanterns on Subaru/SCExAO Speaker: Kim Yoo Jung, UCLA
14:55 - 15:15	Simulating the Polarimetric Mode of TMT-MODHIS Speaker: Rebecca Zhang , UCSB
15:15 - 15:35	Globular clusters as diagnostic to verify Adaptive Optics performance Speaker: Maria Tantalo, INAF
15:35 - 15:55	From Deep Fields to Wide Surveys: Optimized Target Selection for Next-Generation AO-Assisted Multi-Object Spectroscopy Speaker: Nelson Nunes, York University
15:55 - 16:15	TURBO: a 24hr turbulence monitoring facility in Barcelona Speaker: Kathryn Hartley, Durham University

16:15 - 16:40	Rubin Observatory Active Optics System On-Sky Performance Speaker: Sandrine Thomas , NOIRLab
16:40 - 18:10	COFFEE + POSTERS + EXHIBITION

TUESDAY

8:00 - 8:30	REGISTRATION
	Session 3 WAVEFRONT RECONSTRUCTION AND CONTROL I Presider: Julien Lozi
8:30 - 8:55	ULTIMATE-Subaru : Prototype activities for the GLAO real-time control system Speaker: Yoshito Ono, Subaru telescope
8:55 - 9:15	Closing the Loop: Extending Telescope Metrology to the Adaptive Secondary Mirror at LBT Speaker: Luca Rosignoli, INAF
9:15 - 9:35	First autonomous full optimal control on a 10-m class telescope: on-sky opening movement on GTCAO Speaker: Marquis Lucas, University of Bern
9:35 - 9:55	Cascade adaptive optics with a second stage based on a Zernike wavefront sensor for exoplanet observations: in-lab validation on the ESO/GHOST testbed in broadband light Speaker: Anna Rahim, OCA/CNRS/UniCA
9:55 - 10:15	PAPYRUS@OHP: DD4AO first on sky results of an oprimal frequency based controller Speaker: Bernardino Dinis Isaac, University of Geneva
10:15 - 10:35	High Order Keck Adaptive Optics: First results from lab integration and testing of the High Order Deformable Mirror Speaker: Maria Vincent, University of Hawai'i
11:30 - 13:35	COFFEE + EXHIBITION
	Session 4 POST PROCESSING WITH AO DATA Presider: Maaike van Kooten
11:30 - 11:55	Beyond the Blur: The Path to 30x Contrast Enhancement with Coherent Differential Imaging Speaker: Kaitlyn Hessel, University of Victoria
11:55 - 12:15	Blind deconvolution and reconstruction of complex point spread functions Speaker: Anthony Berdeu, Observatoire de Paris
12:15 - 12:35	TipTop: a single tool for all ELT instrument's PSF prediction Speaker: Lisa-Marie Mazzolo, CNRS
12:35 - 12:55	How do our telescopes vibrate? - Data fusion of mechanical and optical telemetry to tackle vibrations at the VLTI Speaker: Nuno Morujão, Universidade do Porto
12:55 - 13:15	Blind deconvolution and PSF substraction of AO observations with Convolutional Neural Networks Speaker: Pierre Vermot , Observatoire de Paris
13:15 - 13:35	Quantum Limits to Extreme Wavefront Sensing Speaker: Jacob Trzaska, University of Arizona
13:35 - 14:50	LUNCH BREAK
	Session 5 ELT STATUS Presider: Esteban Vera
14:50 - 15:10	Advancements in Adaptive Optics at the Large Binocular Telescope Observatory Speaker: Ragland Sam, LBTO

15:10 - 15:30	Advances in Adaptive Optics at the Giant Magellan Telescope Speaker: Fernando Quiros Pacheco, GMTO
15:30-15:50	The Thirty Meter Telescope: A Northern Hemisphere ELT with Powerful AO Capabilities Speaker: David Andersen, TMT
15:50-16:10	Update on EELT construction Speaker: Joël Vernet, ESO
16:10-16:45	PLENARY 2 New frontiers for wavefront correction Speaker: Roberto Ragazzoni, INAF
16:45 - 18:15	COFFEE + POSTERS + EXHIBITION

WEDNESDAY

8:00 - 8:30	REGISTRATION
	Session 6 AO PATHFINDERS AND NEW CONCEPTS Presider: Tim Morris
8:30 - 8:55	GRAVITY+ Extreme AO for Large Telescope Interferometry: ELTs Science in VLT era Speaker: Guillaume Bourdarot, MPIA
8:55 - 9:15	PAPYRUS @ OHP: An On-sky Adaptive Optics Platform for Technology Development Speaker: Mary Angelie Alagao, Aix-Marseille University
9:15 - 9:35	The Bi-O-Edge Wavefront Sensor : In-Lab Experimental Validation Speaker: François Leroux, ONERA
9:35 - 9:55	Pushing the Limits of Visible-Light Spectro-Imaging: The Evolution of FIRST on SCExAO Speaker: Sebastien Vievard, University of Hawaii
9:55 - 10:15	GNAO: Progress and Status towards Final Design Speaker: Masen Lamb, NSF's NOIRLab
10:15 - 10:35	Progress report on laboratory testing and facilitization of the IRTF adaptive secondary mirror Speaker: Ellen Lee, University of Hawai'i
10:35 - 11:05	COFFEE BREAK + EXHIBITION
	Session 7 CURRENT DESIGNS OF ELT AO SYSTEMS II Presider: Sandrine Thomas
11:05 - 11:30	Towards completion of the ELT M4 Unit: insights from Integration and Electromechanical Testing Speaker: Roberto Biasi, A.D.S. International
11:30 - 11:50	GMTO ASMS Risk Reduction Test Results Speaker: Peter Thompson, GMTO
11:50 - 12:10	AO3k and SCExAO: Status of the double extreme-AO Speaker: Julien Lozi, NAOJ
12:10 - 12:30	The Giant Magellan Telescope Adaptive Optics and Phasing Sensors Testbed (GAPS) Speaker: Fernando Quiros Pacheco, GMTO
12:30 - 12:50	Development of Vibration Damping Control Strategy using Laser Guide Stars at Large Telescopes Speaker: Pascal Jaufmann, MPIA
12:50 - 13:10	HARMONI at ELT MCAO mode Science performance and mode validation Speaker: Benoit Neichel, CNRS
13:10 - 14:30	LUNCH
	Session 8 WAVEFRONT RECONSTRUCTION AND CONTROL II Presider: Iciar Montilla
14:30 - 14:55	Performance of MICADO's SCAO: From End-to-End Simulations to First Bench Tests Speaker: Nicolas Levraud, Observatoire de Paris

14:55 - 15:15	Keck Observatory as a testbed for validating wavefront sensing and control techniques on a segmented telescope Speaker: Maissa Salama, UCSC
15:15 - 15:35	WF reconstruction and AO Control for Single Laser Guide Star Adaptive Optics (SLAO) Systems Speaker: Andreas Obereder, Johannes Kepler University Linz
15:35 - 15:55	AOB-WAN: The new adaptive optics bench at GEMINI North Speaker: Jouve Pierre, Space ODT
15:55 - 16:30	PLENARY 3 Adaptive Optics for Astronomy, Defense and Free-space optics : Driving Synergy and Innovation in a Virtuous Cycle Speaker: Thierry Fusco, ONERA
16:30 - 18:00	COFFEE + POSTERS + EXHIBITION

THURSDAY

8:00 - 9:30	REGISTRATION
09:30 - 10:00	COFFEE + EXHIBITION
	Session 9 DEEP LEARNING FOR AO Presider: Cedric Taïssir Heritier
10:00 - 10:20	It works! On-sky closed-loop AO demonstration of deep neural nets for unmodulated pyramid wavefront sensing using Papyrus at OHP Speaker: Esteban Vera, PUCV
10:20- 10:40	Reinforcement learning for wavefront control: from WFS control to focal plane and from numerical simulations to lab and on-sky with PAPYRUS @ OHP Speaker: Markus Kasper, ESO
10:40 - 11:00	Deep Learning for Autonomous Segmented Aperture Control in the Small ExoLife Finder (SELF) Telescope Speaker: Natalia Arteaga-Marrero, IAC
11:00 - 11:20	Improved Pyramid Wavefront Sensor Reconstruction using a Physics-Informed Neural Network Speaker: Ashtyn Gibbs, University of Victoria
11:20 - 11:40	Reconstructing atmospheric residual phase in modal bases using Convolutional Neural Networks Speaker: Pierre Vermot, Observatoire de Paris
	Session 10 WAVEFRONT SENSING Presider: Benoit Neichel
11:40 - 12:00	Deep in the Lows: A Deep Learning-based Wavefront Reconstructor for the Lyot-based Low Order Wavefront Sensor Speaker: Andre Fogal, University of Victoria
12:00 - 12:20	On-sky Demonstration of Fast and Furious for Low Wind Effect correction on Subaru/SCExAO Speaker: Sebastien Vievard, University of Hawaii
12:20 - 12:40	PAPYRUS @ OHP: On-sky results with the focal-plane assisted wavefront sensor : NCPA compensation Speaker: Cedric Taïssir Heritier, ONERA / LAM
12:40 - 13:00	Response of the Ingot WFS to low-order aberrations introduced with a deformable lens Speaker: Tania Gomes Machado, INAF
13:00 - 13:10	On sky tests of a Diffractive Optics Element for 3 Laser Guide Stars with a high-power laser Speaker: Icíar Montilla, IAC
13:10 - 13:30	The photonic lantern wavefront sensor and imager integrated focal-plane wavefront sensing and coherent-differential-imaging beyond the diffraction limit Speaker: Barnaby Norris, University of Sydney
13:30 - 15:00	LUNCH
	Session 11 WAVEFRONT CORRECTION Presider: Maissa Salama
15:00 - 15:25	Title: High-Accuracy and Lightweight Deformable Silicon-Based Mirrors & FlexSiMirror Speaker: Gil Moretto, CNRS
15:25 - 15:45	Addressing the Fragility: Strategies for Safe Handling of (Ultra-)Thin Deformable Mirrors Speaker: Matteo Tintori, A.D.S. International

15:45 - 16:05	New wavefront correctors for XAO: electromagnetic, piezoelectric and SLMs Speaker: Julien Charton, Bertin Alpao
16:05 - 16:25	Test results and future developments of TNO's ASM technology Speaker: Matthew Maniscalco, TNO
16:25 - 16:45	Fifth generation AdOptica deformable mirrors for adaptive optics systems: Subaru ASM, GMT ASMS, MORFEO DM1/DM2, VLT 2GDSM Speaker: Roberto Biasi, Microgate
16:45 - 17:20	PLENARY 4 From Sky to Cell: Adaptive Optics Technologies Shaping the Next Decade Speaker: Domenico Bonaccini Calia, Durham University
17:20 - 18:30	COFFEE + POSTERS + EXHIBITION

FRIDAY

8:00 - 8:30	REGISTRATION
	Session 12 TURBULENCE CHARACTERIZATION AND PROFILLING Presider: Nelly Cerpa-Urra
8:30 - 8:55	Profiling of the Atmosphere by Remote Sensing and Radiosonde Balloon Launches above our Astronomical Observatory Sites - PARABOLAS Speaker: Florian Kerber, ESO
8:55 - 9:15	A wide-band, achromatic, programmable turbulence generator using a spatial light modulator, delivering large optical path differences at high speed Speaker: Alessandra Carmichael-Martins, ESO
9:15 - 9:35	The effect of turbulence induced quasi-static aberrations on off-axis control of ELTs. Speaker: Gill Polly, Durham University
9:35 - 9:55	Modeling Dome Seeing in ESO's ELT with Aerothermal Simulations Speaker: Ronald Holzloehner, ESO
9:55 - 10:15	Temporal and spatial scaling of optical turbulence in the ground layer: complementary profiling of heterogeneous flow regimes Speaker: Dario Perez, PUCV
10:15 - 11:55	BRUNCH + POSTERS + EXHIBITION
	Session 13 AO SIMULATION Presider: Cedric Plantet
11:55 - 12:20	Simulation-Driven Diagnostics of Keck adaptive optic systems with OOPAO Speaker: Mahawa Cisse, WM Keck Observatory
12:20 - 12:40	SAOS: Solar Adaptive Optics Simulator Speaker: Nicolas Rodriguez Linares, IAC
12:40 - 13:00	Low Order Natural Guide Star Selection Tool and Sky Coverage Update for TMT NFIRAOS Speaker: Lianqi Wang, TMT
13:00 - 13:20	Simulations on use of MKID for Optical Transfer Function based phasing of segmented mirrors Speaker: Radhika Dharmadhikari, Durham University
13:20 - 13:40	Data-driven PSF prediction for MUSE-NFM and SPHERE Speaker: Arseniy Kuznetsov, ESO
13:40 - 14:00	Optical-digital co-design strategy for adaptive-optics-assisted systems: application to spectral band selection for imaging satellites and asteroids. Speaker: Florian Cheyssial, ONERA
14:00 - 14:30	COFFEE BREAK
	Session 14 ELT SCIENCE WITH AO II Presider: Charlotte Bond
14:30 - 14:55	SHARK-NIR: Updates from the early science runs Speaker: Simone Di Filippo, INAF
14:55 - 15:15	Exoplanet science with MICADO at the ELT: Simulations, challenges, and first-light strategies Speaker: Paulina Palma-Bifani, Observatoire de Paris

15:15 - 15:35	Status of the MICADO PSF Reconstruction Tool and Validation with ERIS@VLT Speaker: Matteo Simioni, INAF
15:35 - 15:55	Integrating METIS SCAO Speaker: Markus Feldt, Max Planck Society
15:55 - 16:15	The Programmable Liquid-crystal Active Coronagraphic Imager for the 4-m DAG telescope (PLACID) instrument as an ELT pathfinder Speaker: Marquis Lucas, University of Bern
16:15 - 16:35	AO science demonstration with the Adaptive Optics Telemetry format Speaker: Nuno Morujão, Universidade do Porto
16:35 - 17:00	CLOSING REMARKS Speaker: AO4ELT8 Chairs
	ADJOURN

#	POSTERS MONDAY / WEDNESDAY / (FRIDAY)
1	Laser operations at Cerro Pachon, Chile. Influence of space satellites and air traffic. Presenter: Vincent Garrel , NOIRLab
2	Advances In The Field Of Free Space Optical Communications And The Application Of Adaptive Optics At Instituto De Astrofisica De Canarias Presenter: Elena Reyes , IAC
3	First results of AO for optical coupling on free space communication Presenter: Nelly Cerpa , UA
4	Atmospheric Turbulence characterization at AlUla Manara Observatory in Saudi Arabia: early results from SHIMM operations Presenter: Gianluca Lombardi , GRANTECAN
5	BINCAT: a catalog of close-binary stars for AO systems assistance and performance evaluation Presenter: Pietro Ferriauolo , INAF
6	Characterization of atmospheric boundary-layer turbulence using event-based cameras at SEETRUE optical ground station Presenter: Pablo Garrido , PUCV
7	Characterizing NCPA for NirvanaVIS Presenter: Remon Vangaalen, INAF
8	Dealing with platescale variations in multi-conjugate adaptive optics systems: impact on low order stroke and pointing stability in MORFEO-assisted observations Presenter: Lorenzo Busoni , INAF
9	Development of a narrow-band Magneto-Optical Filter (MOF) system for LGS detection in daytime Presenter: David Alaluf, ESA
10	Error Budget for Tip/Tilt Retrieval with Laser Guide Stars using the Propagation-Delay Method Presenter: Julienne Boettger, ESO
11	Establishing baseline models performances for optical turbulence forecasting Presenter: Camilo Weinberger , INAF
12	Exploration of turbulence profilers using event-based vision Presenter: Vicente Westerhout , PUCV
13	FATMOSS: a fast, non-Markov generator for turbulent phase screens Presenter: Arseni Kuznetsov, ESO
14	Final optical design of the adaptive optics module of MAVIS Presenter: Oleksandra Rebrysh , INAF
15	Focal-plane wavefront control using deep learning for high-contrast imaging Presenter: Iremsu Taskin, ULIEGE
16	Exploring Neural Network Approaches for Pyramid Wavefront Sensor Image Denoising Presenter: Jordan Raffard , CNRS

17 Ground layer adaptive optics wavefront error budget for MOSAIC
Presenter: Timothy Butterley , Durham

18 HARMONI at the ELT: Performance analysis of the single conjugate and high contrast AO systems
Presenter: Charlotte Bond , UKATC

19 HARMONI at the ELT: Revised design of the HARMONI AO calibration unit behind MORFEO
Presenter: Noah Schwartz , UKATC

20 Laboratory tests of the MAVIS DNU Shack Hartmann Wavefront Sensor
Presenter: Paolo Cerpelloni , INAF

21 Laser Guide Star System Electronics at the Giant Magellan Telescope
Presenter: Juan Pablo Haddad , GMTO

22 LOR optomechanical design and analyses
Presenter: Edoardo Redaelli , INAF

23 MORFEO wavefront error budget
Presenter: Guido Agapito, INAF

24 Multi-Purpose Laser Pointing Camera for Laser Guide Stars Adaptive Optics and Satellite Communication
Presenter: Felipe Pedreros, ESO

25 VOID

26 Ongoing Developments for WaveDriver, a Laser Guide Star Adaptive Optics System for HWO
Presenter: Dominic Sanchez, Department of Energy

27 EKARUS: The future of PAPYRUS at the Cima Ekar Telescope
Presenter: Cédric Taïssir, ONERA

28 PAPYRUS @ OHP: Improving the AO for fiber-fed spectrographs
Presenter: Mary Angelie Alagao, LAM

29 PAPYRUS @ OHP: trade-offs in the infrared extension optical design.
Presenter: Mary Angelie Alagao, LAM

30 Papyrus@OHP: DAO real-time controller
Presenter: David Barr, Durham

31 Real-Time Adaptive Optics Controller for Deep Learning Wavefront Sensors
Presenter: Benjamín González, PUCV

32 Updated design of the MORFEO Real-Time Computer towards Final Design Review
Presenter: Alfio Puglisi, INAF

33 Design and Implementation of the Real-Time Control Pipeline for the MATTO Test Bench
Presenter: Lorenzo Merli, INAF

34 DAO Real-time control for large aperture solar telescopes
Presenter: David Barr, Durham

35 Prototyping Status of Laser/Natural Wavefront Sensors for ULTIMATE-Subaru GLAO
Presenter: Hajime Ogane, ANU

36 The AO-Petalometer Test Bench: a laboratory facility for the segmented mirror emulation in ELTs
Presenter: Guido Agapito, INAF

37 The INAF-OAR Laser Guide Star AO Laboratory: a national facility for Assembly, Integration and Testing of Advanced LGS-AO Systems
Presenter: Roberto Biasi, Microgate

38 The Laser Guide Star Facility for the ULTIMATE-Subaru Ground Layer Adaptive Optics system: Final Design
Presenter: Hajime Ogane, ANU

39 The MICADO first light imager: first results of the MICADO SCAO beta flat configuration AO tests and first integration of the flat configuration
Presenter: Nicolas Levraud, Observatoire de Paris

40 Updating the Ingot WFS laboratory bench with new LGS simulator
Presenter: Simone Di Filippo, INAF

41 Upgrading SPHERE with the second-stage adaptive optics system SAXO+: Design and Assembly of the Near-Infrared Common Path and Wavefront Sensor Subsystem
Presenter: Matteo Lombini, INAF

42 Using a network of smart telescopes to measure atmospheric turbulence
Presenter: Benoit Neichel, LAM

43 A Generalized Framework for On-Sky Training of AO Reconstructors
Presenter: Robin Swanson, U Toronto

44 First On-Sky Demonstration of a Three-Sided Reflective Pyramid Wavefront Sensor with ShaneAO
Presenter: Dominic Sanchez, Department of Energy

45 LAVA: The next generation Laser Gudie Star Facility for the W.M. Keck Observatory
Presenter: Eduardo Marin, W. M. Keck Observatory

46 Multi-object adaptive optics for GIRMOS: moving towards the manufacturing and integration
Presenter: Uriel Conod, UBC

47 REVOLT-COPPER: a pyramid wavefront sensor testbed from real-time control to time-resolved wavefront sensing
Presenter: Maaike van Kooten, NRC-Herzberg

48 Unmodulated 3-sided pyramid wavefront sensor: laboratory and on-sky tests
Presenter: Muskan Shinde, UNIGE

49 Recording, Implementation and Testing of Holographic Fourier-plane Wavefront Sensors
Presenter: Rodrigo Muñoz, PUCV

50 ULTIMATE-Subaru: Ground Layer Adaptive Optics Project Overview and Calibration Strategy
Presenter: Yosuke Minowa, NAOJ

51 CB2: A Next Generation High-Speed CMOS Camera Platform for Wavefront Sensing
Presenter: Tom Seccull, Oxford Instruments

52 Coupling adaptive optics with a coronagraph module in ELT/ANDES for exoplanet observations: contrast performance results and opto-mechanical design
Presenter: Ernico Pinna, INAF

53 Developing the MOSAIC GLAO sub-system: take me to the light!
Presenter: Tim Morris, Durham

54 Developments in Infrared e-APD Wavefront Sensing Camera Technology
Presenter: Tom Seccull, Oxford Instruments

55 EST MCAO testbed: Preliminary MCAO results.
Presenter: Noelia Feijoo, IAC

56 Fast and curious : AO imaging at 96kHz with a SPAD array
Presenter: Maaike van Kooten, NRC-Herzberg

57 From DrWHO to ProfWHO: Evolving from Global to Individual Speckle Correction On-Sky
Presenter: Nour Skaf, UH

58 MOSAIC at ELT: Instrument Integration and Verification Plan
Presenter: Kacem El Hadi, amU - LAM

59 On-Chip Interferometric Wavefront Sensing and Correction Using a Photonic Integrated Circuit
Presenter: Diego Portero, IAC

60 Overcoming Low-Frequency Control Constraints in AO Systems through Frequency-Domain Characterization
Presenter: Nicolas Rodriguez Linares, IAC

61 Pushing high contrast with new wavefront control methods
Presenter: Valentin Fonteneau, UCBL

62 The Keck All sky Precision Adaptive Optics Tomography System
Presenter: Avinash Surendran, W. M. Keck Observatory

63 The METIS focal plane wavefront control for high-contrast imaging
Presenter: Prashant Pathak, IITK

64 Bubble, Boil, and Trouble? Dome turbulence measured by on-sky adaptive optics.
Presenter: Deborah Malone, Durham

65 Estimating M4 Petal Modes in SCAO: Beyond Atmospheric Turbulence
Presenter: Fabio Rossi, INAF

66 GPI 2.0: Calibration of the Pyramid Wavefront Sensor
Presenter: Saavidra Perera, UCSC

67 How Good Is Good Enough? Image Quality Metrics for High-Resolution Solar Observations with EST
Presenter: Nicolas Rodriguez Linares, IAC

68 MAVIS AO-Module: exploring the sensitivity to atmospheric conditions using TIPTOP
Presenter: Guido Agapito, INAF

69 Phase Unwrapping via Virtual Wavefront Sensors
Presenter: Bernadett Stadler, RICAM

70 Updates of the LAser guide Star Sensor Integrated Extreme adaptive optics (LASSIE) Project
Presenter: Lauren Schatz, Air Force Research Lab

71 Data-driven design of high-performance deep learning wavefront sensors
Presenter: Esteban Vera, PUCV

72 End-to-end design of Wavefront Sensor and Reconstruction using differentiable optical propagation
Presenter: Francisco Oyarzun, LAM

73 The extreme AO system of the ELT's Planetary Camera and Spectrograph
Presenter: Nuno Morujao, U Porto

74 Slow focus sensor for the Keck I laser guide star adaptive optics system using focal plane wavefront sensing
Presenter: Benoit Neichel, LAM

75 Advancing 24/7 Optical Ground-to-Satellite Communication: progress in the CaNaPy/ALASCA Adaptive Optics System
Presenter: Matteo Tintori, A.D.S International

76 Probing the MORFEO and MICADO NCPAs using the MORFEO Post-Focal DMs
Presenter: Gabriele Rodeghiero, INAF

77 SPECULA: A Next-Generation Adaptive Optics Simulation Framework
Presenter: Fabio Rossi, INAF

78 Correction of tip tilt, beam wandering and aberrations for fiber coupling Enhancement in Free-Space Optical links Using refractive Adaptive Optics
Presenter: Stefano Bonora, Institute of Photonics and Nanotechnology

79 Quantifying Water Vapor Seeing Effects on METIS HCI using VLTI data
Presenter: Prashant Pathak, IITK

#	POSTERS TUESDAY / THURSDAY / (FRIDAY)
81	Real-Time Regulator Optimization for Tip-Tilt Compensation on Extremely Large Telescopes Presenter: Marco Falotico, INAF
82	Robust myopic deconvolution combining the parametric marginal approach and a support constraint: experimental validation on Adaptive-Optics corrected images Presenter: Laurent Mugnier
83	Simulations of polychromatic laser guide stars Presenter: Joschua Hellemeier, ANU
84	Tomographic Reconstructor Library for AO: From KAPA LTAO to ELT Systems Presenter: Uriel Conod, UBC
85	An FPGA-GPU readout architecture for novel MKIDs based WFS Presenter: David Barr, Durham
86	From Power Spectral Density to Infinite Phase Screens Generation: towards hybrid simulation strategies in Adaptive Optics Presenter: Fabio Rossi, INAF
87	Beyond Kolmogorov: Bolgiano-Obukhov regimes in the sites of future extremely large telescopes and their implications for optical turbulence modeling Presenter: Marco Sepulveda, PUCV
88	SCIDAR Returns to Maunakea: Initial Concepts and Status Presenter: Ryan Dungee, U Toronto
89	A nonlinear solver for robust pyramid wavefront sensing during strong atmospheric turbulence conditions Presenter: Victoria Laidlaw, JKU
90	Unrolling networks for non-linear wavefront reconstruction with pyramid wavefront sensors Presenter: Felipe Guzmán, PUCV
91	First Experimental Results with a Time- Resolved Pyramid Wavefront Sensor Presenter: Simon Carrier, U Sherbrooke
92	Hybrid-Mode Selective Photonic Lanterns for High-Contrast Spectroscopy on the ELT Presenter: Julien Lozi, NAOJ
93	The Donut method: a â€œsweetâ€□alignment strategy for MORFEO at ELT Presenter: Alessandro Ballone, INAF
94	A hybrid pyramid-Zernike sensor? Anything goes with meta materials! Presenter: Markus Feldt, MPIA
95	An ELT in operation: the VLTI with GRAVITY+ Presenter: Sylvain Oberti, ESO
96	Auto-calibration and performance monitoring of GRAVITY+ Adaptive Optics system with physics-based methods and inverse problem approaches Presenter: Anthony Berdeu, OBSPM/ESO

97 Experimental demonstration of super resolution with a pyramid WFS
Presenter: Charlotte Bond, UKATC

98 First Results from the CaNaPy Project: Demonstration of Visible LGS-AO with a Pyramid Wavefront Sensor
Presenter: Pierre Haguenauer, ESO

99 Improving the SPHERE's Extreme Adaptive Optics correction with SAXO+
Presenter: Maud Langlois , CNRS

100 MORFEO and LIFT: are you allergic to petals?
Presenter: Cedric Plantet, INAF

101 Creating an ELT scale command matrix for METIS in less than one second on a consumer grade GPU using Python
Presenter: Horst Steuer, MPIA

102 From simulations to laboratory: testing the â€œCiaoCiao WFSâ€ for phase discontinuities detection in segmented telescopes
Presenter: Maria Bazzicalupo, INAF

103 High-Contrast Imaging and Polarimetry with SCExAO/VAMPIRES
Presenter: Miles Lucas, UH

104 Less Twinkle, More Transit: Using Adaptive Optics for Transit Photometry
Presenter: Saavidra Perera, UCSC

105 MORFEO control strategy
Presenter: Guido Agapito, INAF

106 NirvanaVIS, final design and path toward sky of the visible GLAO-assisted speckle holography upgrade of LINC-NIRVANA
Presenter: Remon Van Gaalen, INAF

107 On-sky demonstration of a photonic lantern wavefront sensor in closed loop
Presenter: Jonathan Lin, UCLA

108 HARMONI at the ELT: Real time control prototyping on PAPYRUS
Presenter: Charlotte Bond, UKATC

109 PAPYRUS @ OHP: On-sky results with the monomode fiber-fed VIPA spectrometer
Presenter: Angelie Alagao, LAM

110 Optical gain tracking and contrast improvement with a polychromatic pyramid WFS
Presenter: Tim Morris, Durham

111 Quantifying Near-Infrared Point Source Sensitivity for the ELTs: A Comparative Study
Presenter: David Andersen, TMT

112 REVOLT 2.0: Performance analysis of the upgraded AO system at the Dominion Astrophysical Observatory's 1.2m telescope
Presenter: Kate Jackson, NRC-HAA

113 The Impact of Telescope Field Distortions on ELT Instrument Performance
Presenter: Deborah Malone, Durham

114 A 5kHz Modulator for Pyramid Wavefront Sensors
Presenter: Markus Feldt, MPIA

115 Advances in the Instrument Control System Software Design for MORFEO: Integration with MICADO and the post-focal Deformable Mirrors in the ELT Environment.
Presenter: Elia Costa, INAF

116 Analysis and post-processing of the images of the Gran Telescopio Canarias Adaptive Optics System
Presenter: Iciar Montilla, IAC

117 Comparing the Shack-Harmann and Pyramid wavefront sensors with laser guide stars for 40 m telescopes
Presenter: Francisco Oyarzun, LAM

118 Metasurfaces for high-contrast imaging and spectroscopy
Presenter: Frédéric Zamkotsian, LAM - CNRS

119 Multi-layer frozen profiler from single conjugated adaptive optics telemetry: novel approach and potential applications
Presenter: Anthony Berdeu, OBSPM/ESO

120 On-sky validation of SPRINT at LBT to track DM/WFS mis-registrations during HARMONI AO operations
Presenter: Ben Buky, UK Astronomy Technology Centre

121 Optimal Wide Field AO system at Mauna Kea: a statistical approach
Presenter: Pierre Jouve, Space ODT

122 Point diffraction interferometer wavefront sensor with machine learning for laser guide star adaptive optics systems
Presenter: Erin Holdorf, ANU

123 Slope estimation and wavefront reconstruction for laser tomography adaptive optics at the Giant Magellan Telescope
Presenter: Marcos Van Dam, Flat Wavefronts

124 The Ingot-WFS project: getting ready for an on-sky experiment.
Presenter: Tania Machado, INAF Abruzzo

125 Deep learning applied to the optical turbulence forecast in operational context
Presenter: Camilo Weinberger, INAF

126 Integration of data-driven predictive control into the new Keck-II real time controller
Presenter: Jules Fowler, UCSC

127 Novel Raman Fiber Amplifier Based High-Power 589-nm Guide Star Laser for Large Astronomical Telescopes and Optical Ground Stations
Presenter: Daoping Wei, MPB Communications inc

128 Results from the GMT Wide-Field Phasing Testbed
Presenter: Brian Mcleod, Harvard & Smithsonian

129 Singular Value-based Atmospheric Tomography with Fourier Domain Regularization (SAFER)
Presenter: Bernadett Stadler, RICAM

130 Polychromatic Pyramid WFS â€“ MKID project overview
Presenter: Tim Morris, Durham

131 Design of an optical preconditioner for the nonlinear pyramid extension solver for unmodulated pyramid wavefront sensing
Presenter: Felipe Guzmán, PUCV

132 Designing a highly sensitive Fourier-plane Wavefront Sensor using machine learning
Presenter: Esteban Vera, PUCV

133 The potentiality of refractive wavefront correctors
Presenter: Roberto Ragazzoni, INAF

134 Sensitivity analysis of deep learning-based differential piston estimation for the Extremely Large Telescope
Presenter: Benoit Neichel, LAM

135 RECENT DEVELOPMENTS OF LARGE DEFORMABLE MIRRORS FOR THE VLT AT BERTIN ALPAO
Presenter: Aline Pham, Bertin Alpao

136 The PROVIDENCE ground station, A 2.5m telescope Dedicated to space surveillance awareness
Presenter: Thierry Fusco, ONERA

137 The Keck Adaptive Optics Refurbishment Project: Operations Software
Presenter: Jacob Taylor, W. M. Keck Observatory

138 Towards GLAO-like Active Optics at the Vera C. Rubin Observatory
Presenter: Guillem Megias Homar, Caltech

139 ULTIMATE-START : Calibration of the Tomography Adaptive Optics System
Presenter: Akiyama Masayuki, Tohoku University

140 Shaping Light for the Next Era of Exoplanet Discovery with MEMS Deformable Mirror Technology
Presenter: Paul Bierden, Boston Micromachines Corp.

141 Adaptive optics real time control for laser communication and for high power lasers
Presenter: Stefano Bonora, Institute of Photonics and Nanotechnology

142 On-Sky Testing of the World’s Most Powerful 75 W Sodium Beacon
Presenter: Lauren Schatz, Air Force Research Lab

143 Beyond Lenses: Computational Optics empower Observational Astronomy
Presenter: Shanglong Li, Tsinghua University

144 The optical design of AOB WaN for Gemini North
Presenter: Andrew Rakich , Kiwistar Optics

145 Model Predictive control for Adaptive Optics
Presenter: Pedro Escarate, PUCV

146 Laser Projection System for VLT and ELT
Presenter: Speet Bart, TNO Optics

147 Deploying AI for Active Optics Wave-front Estimation During Rubin Observatory Commissioning
Presenter: John Franklin Crenshaw, Stanford University

148 Advanced collision avoidance architecture for the MORFEO LOR WFS: integrating software, electrical and mechanical protections
Presenter: Edoardo Maria Alberto Redaelli, INAF Osservatorio Astronomico di Brera

149 An Interactive Dashboard for Adaptive Optics Telemetry in the ELT System
Presenter: Nuno Morijao, U Porto

150 CONTROL ELECTRONICS OF A PYRAMID WAVEFRONT SENSOR FOR THE “NEXTGEN” TELESCOPES
Presenter: Cedric Plantet, INAF - Osservatorio Astrofisico di Arcetri

151 The importance of dynamic analysis in mitigating the control-structure-interaction (CSI) in large adaptive deformable mirrors
Presenter: Matteo Tintori, A.D.S International

152 Design and prototyping of the high density AdOptica deformable mirror for the European Solar Telescope Adaptive Secondary Mirror (EST ASM)
Presenter: Matteo Tintori, A.D.S. International

153 Upgrading SPHERE with the second stage AO system SAXO+: RTC final design and AIT plan
Presenter: Paul Fontanillas, CNRS

154 Voice-coil Tri-Actuator System for Scalable Carbon-Fiber Segmented Mirrors
Presenter: Benjamín Gac, PUCV

155 Assessment of the limits of an Axicon as a modulation-free Wavefront Sensor boosted by deep learning
Presenter: Jorge Tapia, USM

156 Characterization of GMT Active Support System: Dynamical and Optical Test Results
Presenter: Trupti Ranka, GMTO

157 DaoLite: Durham Adaptive Optics Latency Inspection and Timing Estimator - A Framework for Adaptive Optics temporal performance prediction
Presenter: David Barr, Durham

158 A Python-Based Instrument Control System for Adaptive Optics: Architecture and Applications in the CaNaPy ALASCA Experiment
Presenter: Felipe Pedreros, ESO

159 MORFEO LOR, it is already under maintenance in the virtual world
Presenter: Edoardo Redaelli , INAF

160 Neural Adaptive Optics for Space Applications: from Telescopes to Space Debris Missions
Presenter: David Alaluf, ESA