PROGRAM

Adaptive Optics for Extremely Large Telescopes
AO4ELT6

June 9-14, 2019

MEETING FLOOR PLAN

TABLE OF CONTENT

PROGRAM AT A GLANCE

SUNDAY, JUNE 9, 2019

18:00 - 20:00	Welcome Reception	Espace urbain

MONDAY, JUNE 10, 2019

Oral Sessions		Room 306AB
09:00 - 10:40	Oral Session 1 - Science with AO	
10:40 - 11:10	Coffee Break	Hall 310 & Espace urbain
11:10 - 12:30	Oral Session 2 - Pathfinder instruments	
12:30 - 14:00	Lunch	Rooms 308AB & 309AB
14:00 - 15:40	Oral Session 3 - Wavefront sensing	
15:40 - 16:00	Coffee Break	Hall 310 & Espace urbain
16:00 - 17:40	Oral Session 4 - AO systems design and modelling	
Poster Sessions		Hall 310 & Espace urbain
18:00 - 20:00	Poster Session 1	

TUESDAY, JUNE 11, 2019

Oral Sessions		Room 306AB
09:00 - 10:40	Oral Session 5 - Pathfinder instruments	
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11:10 - 12:30	Oral Session 6 - Wavefront reconstruction	
12:30 - 14:00	Lunch	Rooms 308AB & 309AB
14:00 - 15:40	Oral Session 7 - Laser systems for AO	
15:40 - 16:00	Coffee Break	Hall 310 & Espace urbain
16:00 - 17:40	Oral Session 8 - Wavefront sensing	
Poster Sessions		Hall 310 & Espace urbain
18:00 - 20:00	Poster Session 2	

WEDNESDAY, JUNE 12, 2019

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11:10 - 12:30	Oral Session 10 - Science with AO	
12:30 - 14:00	Lunch	Rooms 308AB & 309AB
14:00 - 15:20	Oral Session 11 - AO disturbances characterization and modelling	

THURSDAY, JUNE 13, 2019

Oral Sessions		Room 306AB
09:00 - 10:40	Oral Session 12 - Wavefront correction	
10:40 - 11:10	Coffee Break	Hall 310 & Espace urbain
11:10 - 12:30	Oral Session 13 - Wavefront sensing	
12:30 - 14:00	Lunch	Rooms 308AB & 309AB
14:00 - 16:00	Oral Session 14 - AO systems design and modelling	
Poster Sessions		**Hall 310 & Espace urbain**
16:00 - 18:00	Poster Session 3	
19:00	Conference dinner	Manège Militaire de Québec

FRIDAY, JUNE 14, 2019

Oral Sessions		Room 306AB
09:00 - 10:40	Oral Session 15 - Pathfinder instruments	
10:40 - 11:10	Coffee Break	Hall 310 & Espace urbain
11:10 - 12:30	Oral Session 16 - Post-processing of adaptive data	
12:30 - 14:00	Lunch	Rooms 308AB & 309AB

SECRETARIAT

Conferium / AO4ELT6
Tel.: +1 418 522 8182
Email : ao4etl6@conferium.com

WELCOME TO AO4ELT6

Welcome to the 6th edition of the Adaptive Optics for Extremely Large Telescopes (AO4ELT6) conference. So far the five AO4ELTs have alternated locations between Europe and North America, the first being in Paris in 2009, then Victoria in 2011, followed by Florence in 2013, Los Angeles in 2015, and then Tenerife in 2017. We truly hope that you will enjoy this venue in Quebec City, the cradle of French culture in North America.

Let us acknowledge the kind contributions of these institutions in support of our meeting: Centre for Optics, Photonics, and Lasers (COPL), Centre for Research in Astrophysics of Quebec (CRAQ), European Southern Observatory (ESO), European Solar Telescope (EST), Giant Magellan Telescope (GMT), National Institute for Astrophysics (INAF), Institut National d'Optique (INO), Institute for Research on Exoplanets (iREx), Optonique, Thirty Meter Telescope (TMT), and Université Laval. Furthermore, we would like to thank our commercial sponsors, ABB, Andor, ALPAO, Boston Micromachines Corporation, Imagine Optics, NüVü cameras, ONERA, Toptica, and MPB for partnering with us in the organization of the event.

The three major extremely large telescope projects, ELT, TMT and GMT, are now all in important active development phases and some have already begun site construction. The science programs of these telescopes will highly depend on adaptive optics. The adaptive optics implementation scenarios are widely varied, as is the modern technology needed for their application, including adaptive secondary mirrors, large arrays of laser beacons, and real-time computing, to name a few. The goal of this meeting is to promote the exchange of new information and ideas that will mutually benefit all the AO programs, and will spur new concepts for future systems.

This booklet provides an overview of the technical program with the oral presentations in chronological order and the poster presentations grouped according to poster session. Three poster sessions will be held in the display area in groups of roughly 80 per session. For each oral title you will find day, session number, and time of presentation. Above each poster title you will find the poster session number, the evening assigned to that poster session, and the topic area.

We invite you to take some time to walk around our beautiful city and enjoy the company of your colleagues from the adaptive optics community.

Sincerely,

The AO4ELT6 Scientific Organizing Committee

ORGANIZING COMMITEES

PRESENTING THE LATEST RESEARCH ON ADAPTIVE OPTICS FOR LARGE TELESCOPES SINCE 2009.

SCIENTIFIC ORGANIZING COMMITTEE

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- **Thierry Fusco,** ONERA/LAM, Co-chair
- **Jean-Pierre Véran,** NRC-HIA, Co-chair
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- **Gaetano Sivo,** Gemini
- **Joel Vernet,** ESO
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- **Lianqi Wang,** TMT

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- **Simon Thibault**
- **Maxime Vernier**

GENERAL INFORMATION

CONFERENCE VENUE

Québec City Convention Centre
1000, boulevard René-Lévesque Est
Québec, QC G1R 5T8 Canada

PARKING

There are many underground parking spaces close to the Centre. More specifically, Marie-Guyart complex, Place Québec, Delta Hotel and finally the Place D'Youville parking lot all linked by underground connections. These lots operate 24 hours a day, 7 days a week.

REGISTRATION DESK

All participants should register at the Registration Desk to receive relevant Conference materials. The Registration Desk is located in the Hall 310 of the Convention Centre. It will be open at the conference venue at the following times:

Sunday, June 9	14:00 to 19:00
Monday, June 10	08:00 to 19:00
Tuesday, June 11	08:30 to 19:00
Wednesday, June 12	08:30 to 15:00
Thursday, June 13	08:30 to 17:00
Friday, June 14	08:30 to 12:00

EXHIBITION HOURS

Monday, June 10	10:00 to 20:00
Tuesday, June 11	09:00 to 20:00
Wednesday, June 12	09:00 to 15:00

INTERNET ACCESS / MOBILE PHONE

Free internet facilities are available to all participants in the conference venue. During the meetings, please turn off your mobile phone or set it to mute.
Wifi: Centre des congrès
No password needed

SPEAKER READY DESK

All speakers are required to check-in at the Speaker Ready Desk (Special Desk in the Registration Area) to upload their presentation at least 3 hours prior to the start of their session, or the day before for early morning sessions. The Speaker Ready Desk will be open from June 10 to 14 and the staff will be available to answer your questions and to help you upload your presentation from your USB memory stick.

NAME BADGE

Please wear your name badge at all times. This will ensure your access to the conference rooms and the Exhibition Hall.

CERTIFICATE OF ATTENDANCE

An official certificate of attendance will be provided upon request. Come to ask for it.

MEALS AND COFFEE BREAKS

Coffee breaks are located in the exhibition halls (Hall 310 and Espace urbain). Lunches are located in the rooms 308AB and 309AB. You can find meal and coffee break times in the program at a glance.

DISCLAIMER

The Adaptive Optics for Extremely Large Telescopes secretariat and organizers cannot assume liability for personal accidents, loss of or damage to private property of participants, and accompagnying persons, either during or directly arising from the Adaptive Optics for Extremely Large Telescopes Conference. Participants should make their own arrangement with respect to health and travel insurance.

SECURITY

Please do not leave bags and luggage unattended at any time, whether inside or outside session rooms.

GENDER EQUITY POLICY

The Adaptive Optics for Extremely Large Telescopes Conference strives to achieve gender balance in all aspects of the conference. The organizers will endeavor to achieve this balance through equitable female and male representation on the science organizing committee and as session chairs, as well as through invitations to high quality oral and poster presenters of both sexes in line with the gender balance in our research community.

ACKNOWLEDGEMENTS

The Adaptive Optics for Extremely Large Telescopes 2019 Organizing Committee would like to express its gratitude to and acknowlege to the following partners for their generous support:

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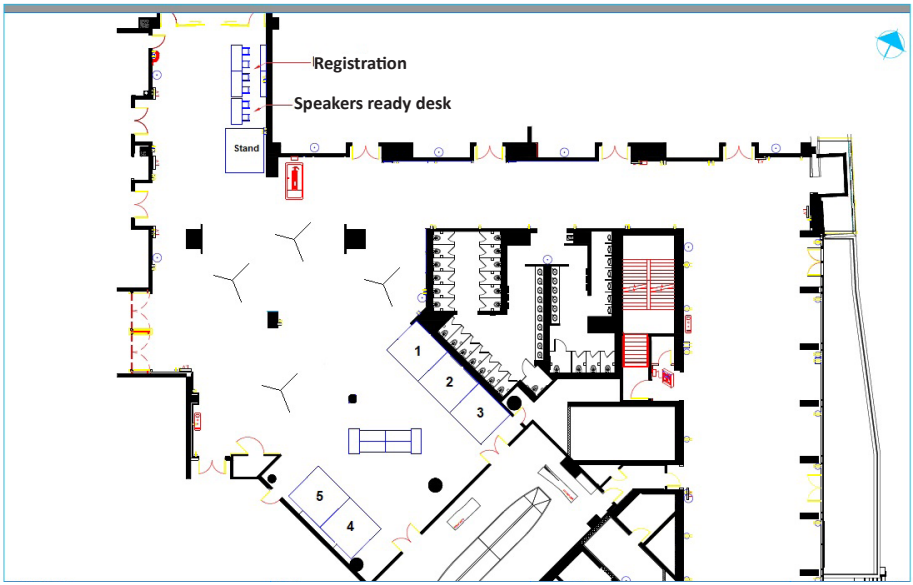
EXHIBITION PLAN



SOCIAL ACTIVITIES

WELCOME RECEPTION

Sunday, June 9, 2019 - 6-8 pm

Included in your registration

Join us for the welcome reception at the Québec City convention centre. This will be an opportunity for the attendees to meet and greet in an informal setting. Appetizers and drinks will be served. The registration desk will be open prior to the welcome reception, from 2-7 pm, for those who would like to register before Monday morning.

CONFERENCE DINNER

Thursday, June 13, 2019 - 7-10 pm

Included in your registration

Join us at the Manège Militaire de Québec, a National Heritage site. Completed in 1888, the Manège is the home of the Voltigeurs de Québec, the oldest French-Canadian regiment. Extra conference dinner tickets are available, but should be booked in advance, either when filling the registration form or upon arrival at the registration desk where a limited number of tickets will be available until Tuesday, June 11, noon.

SCIENTIFIC PROGRAM

SUNDAY, JUNE 9, 2019

14:00	**Registration open**
18:00 - 20:00	**Welcome reception**

MONDAY, JUNE 10, 2019
ROOM 306AB

SESSION 1 - SCIENCE WITH AO

Session chair: Simon Thibault

09:00 - 09:20	**Original use of MUSE's LTAO to directly image young accreting exoplanets** Girard, Julien - Haffert, Sebastiaan - de Boer, Jos - Bohn, Alexander
09:20 - 09:40	**The METIS high contrast imaging modes: concept, performance, and perspectives** Absil, Olivier - Kenworthy, Matthew - Carlomagno, Brunella - Delacroix, Christian - Pathak, Prashant - Cantalloube, Faustine - Feldt, Markus - Hippler, Stefan - Doelman, David - Por, Emiel - Orban de Xivry, Gilles - Agocs, Tibor - Brandl, Bernhard
09:40 - 10:00	**An Overview of the TMT Planetary Systems Imager** Fitzgerald, Michael - Chun, Mark - Guyon, Olivier - Jovanovic, Nemanja - Macintosh, Bruce - Mawet, Dimitri - Mazin, Benjamin - Skemer, Andrew, and the PSI Team
10:00 - 10:20	**Thermal Imaging and Characterization of Rocky Earth-size Habitable Zone Planets in the Solar Neighborhood with TMT** Marois, Christian - Blain, Célia
10:00 - 10:40	**ELT-HIRES, the high resolution spectrograph for the ELT and its unique AO-assisted IFU capability** Marconi, Alessandro
10:40 - 11:10	Coffee Break

SESSION 2 - PATHFINDER INTRUMENTS

Session chair: Jean-Pierre Véran

11:10 - 11:50	***Keynote presentation* Adaptive Optics Program at TMT** Boyer, Corinne
11:50 - 12:10	**MAVIS, Multi-Conjugate in the visible for the VLT** Rigaut, Francois - Viotto, Valentina - Bergomi, Maria - Busoni, Lorenzo - Fusco, Thierry - Neichel, Benoit - Ellis, Simon - McDermid, Richard - Cresci, Giovanni - Brodrick, David - Arsenault, Robin - Brule, Yoann - Esposito, Simone - Ragazzoni, Roberto - Sharp, Robert - Greggio, Davide - Pedichini, Fernando - Antoniucci, Simone - Correia, Carlos - Gratadour, Damien - Pinna, Enrico - Bonaglia, Marco - Agapito, Guido - Stroebele, Stefan - Haguenauer, Pierre - Plantet, Cedric - Salasnich, Bernardo - Magrin, Demetrio - Arcidiacono, Carmelo - Beltramo-Martin, Olivier - Korkiakoski, Visa
12:10 - 12:30	**Ongoing and future AO projects at Subaru** Ono, Yoshito - Akiyama, Masayuki - Minowa, Yosuke - Mieda, Etsuko - Mitsuda, Kazuma - Sakurai, Daiki - Ogane, Hajime - Oomoto, Kaoru - Oya, Shin - Yamamuro, Tomoyasu
12:30 - 14:00	Lunch

SESSION 3 - WAVEFRONT SENSING

Session chair: Sylvain Oberti

14:00 - 14:20	**C--More : the laser guide star wavefront sensor** Gach, Jean-Luc - Philippe, Feautrier - Stadler, Eric - Boutolleau, David - Caillat, Amandine - Pourcelot, Raphael
14:20 - 14:40	**A new wavefront sensor for Keck: Pyramid wavefront sensing in the near infrared** Bond, Charlotte - Cetre, Sylvain - Lilley, Scott - Ragland, Sam - Jovanovic, Nemanja - Delorme, Jacques-Robert - Wizinowich, Peter - Chun, Mark - Mawet, Dimitri - Jacobson, Shane - Warmbier, Eric - Lockhart, Charles - Wetherell, Ed - Taheri, Mojtaba - Wallace, James - Guyon, Olivier - Hall, Donald

14:40 - 15:00	**Modal gain optimization of the Pyramid Wave-Front Sensor using a convolutive model: from theory to experimental validation** Chambouleyron, Vincent - Fauvarque, Olivier - Janin-Potiron, Pierre - Schatz, Lauren - Brûlé, Yoann - Neichel, Benoît - Correia, Carlos - Sauvage, Jean-François - Fusco, Thierry
15:00 - 15:20	**The Teledyne e2v CIS124 LVSM sensor for large telescopes-design and prototype tests** Jorden, Paul - Gil-Ortero, Rafael - Swift, Nick - Downing, Mark - Marchetti, Enrico
15:20 - 15:40	**Pupil plane wavefront sensing for extended & 3D sources** Ragazzoni, Roberto - Viotto, Valentina - Portaluri, Elisa - Bergomi, Maria - Greggio, Davide - Di Filippo, Simone - Santhakumari, Kalyan - Umbriaco, Gabriele - Dima, Marco - Magrin, Demetrio - Farinato, Jacopo - Marafatto, Luca - Arcdiacono, Carmelo - Biondi, Federico
15:40 - 16:00	Coffee Break

SESSION 4 - AO SYSTEMS DESIGN AND MODELLING

Session chair: Valentina Viotto

16:00 - 16:20 **HARMONI at the diffraction limit: From Single Conjugate to Laser Tomography Adaptive Optics**
Neichel, Benoit - Thatte, Niranjan - Fusco, Thierry - Correia, Carlos - Sauvage, Jean-Francois - Dohlen, Kjetil - El Hadi, Kacem - Costille, Anne - Schwartz, Noah - Bardou, Lisa - Beuzit, Jean-Luc - Blanco, Leonardo - Bon, William - Bonnefoi, Anne - Bonnefois, Aurelie - Caillat, Amadine - Calcines-Rosario, Ariadna - Carlotti, Alexis - Choquet, Elodie - Dubbeldam, Marc - Epinat, Benoit - Feautrier, Philippe - Ferrari, Marc - Gach, Jean-Luc - Groussin, Olivier - Henault, Francois - Hubert, Zoltan - Jocou, Laurent - Ke, Zibo - Lim, Caroline - Meimon, Serge - Moulin, Thibault - Morris, Tim - Peroux, Celine - Petit, Cyril - Rabou, Patrick - Renault, Edgard - Stadler, Eric - Vedrenne, Nicolas - Vigan, Arthur - Vola, Pascal - Clarke, Fraser - Schnetler, Hermine - Bryson, Ian - Tecza, Matthias - Vernet, Joel - Hammersley, Peter - Egner, Sebastian - Gonté, Frederic - Paufique, Jerome - Le Louarn, Miska

16:20 - 16:40 **NFIRAOS AO Calibration Plan**
Veran, Jean-Pierre - Herriot, Glen - Andersen, David - Lardiere, Olivier - Kerley, Dan

16:40 - 17:00 **Adaptive optics design status of MAORY, the MCAO system of European ELT**
Busoni, Lorenzo - Agapito, Guido - Plantet, Cedric - Esposito, Simone - Oberti, Sylvain - Ciliegi, Paolo

17:00 - 17:20 **NFIRAOS Pre-Production Optical Design Update**
Atwood, Jenny - Andersen, David - Herriot, Glen - Lardiere, Olivier - Veran, Jean-Pierre

17:20 - 17:40 **ELT Wavefront Control strategy**
Bonnet, Henri - Spyromilio, Jason - Esselborn, Michael - Marchetti, Enrico - Le Louarn, Miska - Vérinaud, Christophe - Lewis, Steffan - Pfrommer, Thomas - Biancat-Marchet, Fabio

17:40 - 18:00	**Single Conjugate Adaptive Optics for METIS** Bertram, Thomas - Bizenberger, Peter - Briegel, Florian - Cantalloube, Faustine - Cardenas Vazquez, Conchi - Feldt, Markus - Henning, Thomas - Hippler, Stefan - Huber, Armin - Kulas, Martin - Mohr, Lars - Rohloff, Ralf-Rainer - Scheithauer, Silvia - Steuer, Horst - van Boekel, Roy - Absil, Olivier - Kenworthy, Matthew - Stuik, Remko - Obereder, Andreas - Glauser, Adrian
18:00	**POSTER SESSION**

TUESDAY, JUNE 11, 2019
ROOM 306AB

SESSION 5 - PATHFINDER INSTRUMENTS

Session chair: Simone Esposito

09:00 - 09:40	***Keynote presentation* GMT Active and Adaptive Optics Overview** Bouchez, Antonin - Angeli, George - Ashby, David - Brossus, Glenn - Conan, Rodolphe - Groark, Frank - McLeod, Brian - Quirós-Pacheco, Fernando - Rakich, Andrew - Thompson, Peter - van Dam, Marcos
09:40 - 10:00	**Characterization and closed-loop laboratory testing of deformable mirrors for the MagAO-X project** Van Gorkom, Kyle - Males, Jared - Guyon, Olivier - Morzinski, Katie - Miller, Kelsey
10:00 - 10:20	**First Light and Early Science with the LINC-NIRVANA MCAO system on LBT** Herbst, Thomas - Arcidiacono, Carmelo - Bergomi, Maria - Bertram, Thomas - Briegel, Florian - Farinato, Jacopo - Klettke, Micah - Marafatto, Luca - Ragazzoni, Roberto - Santhakumari, K.K.R. - Santos, Fabio - Viotto, Valentina
10:20 - 10:40	**Bringing SOUL on sky** Pinna, Enrico - Hinz, Philip - Rossi, Fabio - Puglisi, Alfio - Agapito, Guido - Briguglio, Runa - Vaz, Amali - Montoya, Oscar - Durney, Oliver - Bonaglia, Marco - Plantet, Cedric - Mazzoni, Tommaso - Carbonaro, Luca - Xompero, Marco - Grani, Paolo - Christou, Julian - Miller, Douglas - Taylor, Gregory - Cavallaro, Alessandro - Lefebvre, Michael - Riccardi, Armando - Esposito, Simone
10:40 - 11:10	Coffee Break

SESSION 6 - WAVEFRONT RECONSTRUCTION

Session chair: Carlos Correia

11:10 - 11:30	**Overview of focal plane wavefront sensors to correct for the Low Wind Effect on SCExAO/SUBARU** Vievard, Sebastien - Bos, Steven - Guyon, Olivier - Lozi, Julien - Norris, Barnaby - Sahoo, Ananya - N'Diaye, Mamadou - Sauvage, Jean-François - Martinache, Frantz - Jovanovic, Nemanja - Mugnier, Laurent - Cassaing, Frederic - Bonnefois, Aurélie - Wilby, Mike - Keller, Christoph - Snik, Frans
11:30 - 11:50	**Building an RTC for ELT Scale AO Systems: Lessons learnt building a prototype RTC using standard computing hardware** Townson, Matthew - Basden, Alastair - Jenkins, David - Morris, Timothy - Osborn, James
11:50 - 12:10	**Elephants, goldfishes and SOUL: a dissertation on forgetfulness and control systems** Agapito, Guido - Pinna, Enrico - Puglisi, Alfio - Rossi, Fabio
12:10-12:30	**Herzberg Extensible Adaptive Real-time Toolkit (HEART) Software Architecture** Kerley, Dan - Smith, Malcolm - Véran, Jean-Pierre - Dunn, Jennifer - Gharavi, Niloofar
12:30 - 14:00	Lunch

SESSION 7 - LASER SYSTEMS FOR AO

Session chair: Celine d'Orgeville

14:00 - 14:20	**Raman scattering of laser guide-star photons: from forgotten nuisance to observatory asset** Vogt, Frédéric
14:20 - 14:40	**CaNaPy: Demonstrator for LGS-AO technologies at visible wavelengths with pyramid WFS, pulsed laser and uplink beam correction** Bonaccini Calia, Domenico - Pinna, Enrico - Osborn, James - Reeves, Andrew - Martinez Rey, Noelia - Alaluf, David - Hellemeier, Joshua - Townson, Matt - Speziali, Roberto - Rodriguez Ramos, Luis Fernando - Mata Calvo, Ramon - Perdigues Armengol, Josep Maria - Hackenberg, Wolfgang - Basden, Alastair - Centrone, Mauro - Reyes Garcia Talavera, Marcos - Barrios, Ricardo - Kellerer, Aglae - Morris, Tim - Di Paola, Andrea - Lévêque, Samuel - Puglisi, Alfio
14:40 - 15:00	**Demonstration of VECSELs as viable alternatives for 589 nm sodium beacons** Byrd, Olivia - Wyman, Keith - Johnson, Robert
15:00 - 15:20	**Report on the results of the Photometry and Spectroscopy analysis of the uplink Laser Guide Star beam with the 10.4m Gran Telescopio CANARIAS** Lombardi, Gianluca - Bonaccini Calia, Domenico - Centrone, Mauro - Cabrera Lavers, Antonio - de Ugarte Postigo, Antonio
15:20 - 15:40	**Laser Workshop recap** d'Orgeville, Céline
15:40 - 16:00	Coffee Break

SESSION 8 - WAVEFRONT SENSING

Session chair: Enrico Pinna

16:00 - 16:20	**Special offer: A new WaveFront Sensor for just Pi/2 euros!** Fauvarque, Olivier - Hutterer, Victoria - Janin-Potiron, Pierre - Duboisset, Julien - Correia, Carlos - Sauvage, Jean-Francois - Neichel, Benoit - Fusco, Thierry - Brûlé, Yoann - Shatokhina, Luliia - Ramlau, Ronny
16:20 - 16:40	**Focal plane tip-tilt sensing for improved single-mode fiber coupling using a 3D printed microlens-ring** Hottinger, Philipp - Harris, Robert - Morris, Tim - Basden, Ali - Bharmal, Nazim Ali - Dietrich, Philipp-Immanuel - Glück, Martin - Bechter, Andrew - Crass, Jonathan - Pott, Jörg-Uwe - Koos, Christian - Sawodny, Oliver - Quirrenbach, Andreas
16:40 - 17:00	**Maximum Likelihood Phasing of Large Segmented Mirrors under Turbulence with a Pyramid** Holzlöhner, Ronald - Kellerer, Aglaé - Cheffot, Anne-Laure - Lévêque, Samuel
17:00 - 17:20	**Forward with self-adaptive optical gain modal compensation: comparative simulations with various PWFS-class sensors** Deo, Vincent - Gendron, Éric - Rousset, Gérard - Vidal, Fabrice - Ferreira, Florian - Sevin, Arnaud - Gratadour, Damien - Buey, Tristan
17:20 - 17:40	**On-sky demonstration of focal-plane wavefront sensing with the vector Apodizing Phase Plate coronagraphic PSFs on SCExAO** Bos, Steven - Doelman, David - Lozi, Julien - Guyon, Olivier - Miller, Kelsey - Snik, Frans
17:40 - 18:00	**Real-time estimation of NCPA and exoplanet detection in the face of wavefront measurement error in extreme-AO coronagraphs** Rodack, Alexander - Frazin, Richard - Males, Jared
18:00	**POSTER SESSION**

WEDNESDAY, JUNE 12, 2019
ROOM 306AB

SESSION 9 - AO SYSTEMS DESIGN AND MODELLING

Session chair: Thierry Fusco

09:00 - 09:20 **A story of errors and bias: the optimisation of the LGS WFS for HARMONI**
Fusco, Thierry - Neichel, Benoit - Correia, Carlos - Costille, Anne - Dohlen, Kjetil - Gach, Jean-Luc - Blanco, Leonardo - Lim, Caroline - Renault, Edgard - Bonnefoi, Anne - Caillat, Amandine - Bonnefois-Montmerle , Aurelie - Ke, Zibo - El Hadi, Kacem - Feautrier, Philippe - Rabou, Patrick - Hubert, Zoltan - Henault, Francois - Paufique, Jerome - Clarke, Fraser - Bryson, Ian - Thatte, Niranjan

09:20 - 09:40 **Adaptive Optics system overview for the TMT PSI instrument**
Chun, Mark - Guyon, Olivier - Fitzgerald, Michael - Jovanovic, Nemanja - Skemer, Andy - Mazin, Ben - Mawet, Dimitri - Macintosh, Bruce

09:40 - 10:00 **An integrated modeling approach to adaptive optics simulations**
Conan, Rodolphe - Vogiatzis, Konstantinos - Das, Kaushik - Schwartz, David - Angeli, George

10:00 - 10:20 **Another path for getting ELT-scale pyramid WFS under control?**
Gendron, Eric - Deo, Vincent - Bertrou, Arielle - Vidal, Fabrice - Gratadour, Damien - Ferreira, Florian - Clenet, Yann - Rousset, Gerard

10:20 - 10:40	**Status of the SCExAO instrument: recent technology upgrades and path to a system-level demonstrator for PSI** Lozi, Julien - Guyon, Olivier - Vievard, Sebastien - Sahoo, Ananya - Jovanovic, Nemanja - Norris, Barnaby - Mazin, Ben - Walter, Alex - Tuthill, Peter - Kudo, Tomoyuki - Kawahara, Hajime - Kotani, Takayuki - Ireland, Michael - Cvetojevic, Nick - Huby, Elsa - Lacour, Sylvestre - Groff, Tyler - Chilcote, Jeffrey - Kasdin, Jeremy - Martinache, Frantz - Laugier, Romain - Knight, Justin - Bos, Steven - Snik, Frans - Doelman, David - Bendek, Eduardo - Belikov, Ruslan - Currie, Thayne - Minowa, Yosuke - Clergeon, Christophe - Takato, Naruhisa - Tamura, Motohide - Takami, Hideki - Hayashi, Masato
10:40 - 11:10	Coffee Break

SESSION 10 - SCIENCE WITH AO

Session chair: Jean-Pierre Véran

11:10 - 11:50	***Keynote presentation* Progress along the EST MCAO roadmap** Montoya Martinez, Luzma - Asensio, Andres - Berkefeld, Thomas - Collados Vera, Manuel - de Cos Juez, Francisco Javier - Morris, Timothy - Stangalini, Marco - von der Lühe and the EST, Oskar
11:50 - 12:10	**Laser assisted MCAO observations of embedded massive star clusters now and in the future** Andersen, Morten - Sivo, Gaetano - Zinnecker, Hans - Lawrence, Grace - Nayak, Omnarayani - Hirschauer, Alec - Meixner, Margaret - Neichel, Benoit
12:10-12:30	**MICADO sci-ops: shaping its adaptive optics systems** Davies, Richard
12:30 - 14:00	Lunch

SESSION 11 - AO DISTURBANCES CHARACTERIZATION AND MODELLING

Session chair: Iciar Montilla

14:00 - 14:20	**Local turbulence: Causes and effects** Lai, Olivier - Chun, Mark - Withington, Kanoa - Laugier, Romain
14:20 - 14:40	**New achievements in optical turbulenceforecast systems in operational mode** Masciadri, Elena - Turchi, Alessio - Martelloni, Gianluca
14:40 - 15:00	**METIS high-contrast performance: the wind driven halo** Cantalloube, Faustine - Bertram, Thomas - Absil, Olivier - Neureuther, Philip - Por, Emiel - Pathak, Prashant - Orban de Xivry, Gilles - Kenworthy, Matthew - Brandner, Wolfgang - Feldt, Markus - Kulas, Martin - Scheithauer, Silvia - Steuer, Hörst - van Boekel, Roy
15:00 - 15:20	**ELT performance report 2018A: expected AO performance with real turbulence profiles** Farley, Ollie - Osborn, James - Morris, Tim - Fusco, Thierry - Neichel, Benoit - Correia, Carlos - Wilson, Richard
15:20 - 15:40	**Nowcasting the turbulence in Paranal** Milli, Julien - Martayan, Christophe - Hainaut, Olivier - Brillant, Stephane - Navarrete, Julio - Chacon, Arlette - Mieske, Steffen

THURSDAY, JUNE 13, 2019
ROOM 306AB

SESSION 12 - WAVEFRONT CORRECTION

Session chair: Simone Esposito

09:00 - 09:20	**Accelerometer-based tip-tilt vibration suppression at the LBT** Glueck, Martin - Pott, Jörg-Uwe - Zhang, Xianyu - Bec, Matthieu - Brusa, Guido - Hill, John - Conrad, Al - Veillet, Christian - Andrighettoni, Mario - Biasi, Roberto - Sawodny, Oliver
09:20 - 09:40	**Deformable Mirrors development in Europe - Results of the first phase of the ESO R&D program** Stroebele, Stefan - Charton, Julien - Dietzel, Oliver - Mahiou, Pierre - Reinlein, Claudia - Vernet, Elise
09:40 - 10:00	**MEMS Deformable Mirrors for High Contrast Imaging in Current and Future Telescope** Bierden, Paul - Cornelissen, Steven - Ryan, Peter - Lam, Charlie - Bifano, Thomas
10:00 - 10:20	**New deformable Mirrors available for the ELT and future developments** Mahiou, Pierre - Laslandes, Marie - Charton, Julien
10:20 - 10:40	**Two large deformable mirrors for TMT** Sinquin, Jean-Christophe - Aribi, Tarek - Bastard, Arnaud - Beaufort, Emmanuel - Casier, Olivier - Grèzes-Besset, Catherine - Groëninck, Denis - Guinet, Jean-Michel - Krol, Hélène - Landureau, Christophe - Leroux, Sébastien - Michel, Laura - Moreau, Aurélien - Morin, Pierre - Pagès, Hubert - Palomo, Richard - Roux, Bruno - Vaillant, Stéphane - Wehrlé, Ronan
10:40 - 11:10	Coffee Break

SESSION 13 - WAVEFRONT SENSING

Session chair: Charlotte Bond

11:10 - 11:50	***Keynote presentation* The ESO Extremely Large Telescope** Cirasuolo, Michele
11:50 - 12:10	**LGS tomography and spot truncation: tips and tricks** Oberti, Sylvain - Verinaud, Christophe - Le Louarn, Miska - Madec, Pierre-Yves - Agapito, Guido - Plantet, Cedric - Busoni, Lorenzo - Esposito, Simone - Blanco, Leonardo - Fusco, Thierry - Neichel, Benoit
12:10-12:30	**INGOT WFS for LGSs: first results from simulations** Portaluri, Elisa - Viotto, Valentina - Ragazzoni, Roberto - Arcidiacono, Carmelo - Bergomi, Maria - Greggio, Davide - Filippo, Simone - Marafatto, Luca - Dima, Marco - Biondi, Federico - Farinato, Jacopo - Magrin, Demetrio
12:30 - 14:00	Lunch

SESSION 14 - AO SYSTEMS DESIGN AND MODELLING

Session chair: Gaetano Sivo

14:00 - 14:20	**GNAO: an MCAO system for Gemini North towards Conceptual Design** Sivo, Gaetano - Marin, Eduardo - Goodsell, Stephen - Provost, Natalie - Montes, Vanessa - Catala, Laure - Lombardi, Gianluca - Blakeslee, John - Chirre, Emmanuel - Cavedoni, Chas - Moreno, Cristian - Chinn, Brian - Hirst, Paul - Christou, Julian - Chun, Mark - Correia, Carlos - Esposito, Simone - Fusco, Thierry - Lamb, Masen - Neichel, Benoit - Rigaut, Francois - Steinbring, Eric - Veran, Jean-Pierre - Andersen, Morten - Diaz, Ruben - Carrasco, Rodrigo - Schwamb, Meg - Scharwaechter, Julia - Dupuy, Trent - Lemoine-Busserolle, Marie - Nunez, Arturo - Blank, Andrea - Kleinman, Scot - Blough, Catherine - Lotz, Jennifer
14:20 - 14:40	**Implementation of a high performance solver for the tomographic reconstructor** Doucet, Nicolas - Damien, Gratadour - LTaief, Hatem - Gendron, Eric - Keyes, David

14:40 - 15:00	**Analysis the MICADO-MAORY SCAO performance** Vidal, Fabrice - Ferreira, Florian - Deo, Vincent - Sevin, Arnaud - Gendron, Eric - Clénet, Yann - Gratadour, Damien - Rousset, Gerard - Davies, Ric
15:00 - 15:20	**The SCAO module for HARMONI, towards final design** Sauvage, Jean-Francois - Schwartz, Noah - Carlos, Correia - Petit, Cyril - Fusco, Thierry - Neichel, Benoit - Dohlen, Kjetil - El Hadi, Kacem - Vola, Pascal - Renault, Edgard - le Merrer, Joel - Paufique, Jerome - Clarke, Fraser - Thatte, Niranjan - Morris, Tim - Carlotti, Alexis - Bryson, Ian - Schnetler, Hermine
15:20 - 15:40	**Integrated Modelling of NFIRAOS: Characterizing performance in the presence of vibration** Fitzsimmons, Joeleff - Andersen, David - Atwood, Jenny - Herriot, Glen - Kerley, Dan - Veran, Jean-Pierre - Roberts, Scott
15:40 - 16:00	**Modeling the Giant Magellan Telescope dome seeing using fluid dynamics simulations** Conan, Rodolphe - van Dam, Marcos - Vogiatzis, Konstantinos - Das, Kaushik - Bouchez, Antonin
16:00	**POSTER SESSION**
19:00	**CONFERENCE DINNER**

FRIDAY, JUNE 14, 2019
ROOM 306AB

SESSION 15 - PATHFINDER INSTRUMENTS

Session chair: Joël Vernet

09:00 - 09:20	**The multi-object adaptive optics system for the GIRMOS spectrograph on Gemini-South** Chapman, Scott - Jackson, Kate - Veran, Jean-Pierre - Lardiere, Olivier - Sivanandam, Suresh - Correia, Carlos - Anderson, David - Sivo, Gaetano - Lamb, Masen
09:20 - 09:40	**The Keck Planet Imager and Characterizer: enabling advanced exoplanet characterization techniques for future extremely large telescopes** Delorme, Jacques-Robert - Jovanovic, Nemanja - Mawet, Dimitri - Bond, Charlotte - Cetre, Sylvain - Echeverri, Daniel - Wallace, James Kent - Bartos, Randy - Lilley, Scott - Ragland, Sam - Wizinowich, Peter - Chun, Mark - Wang, Ji - Wang, Jason - Fitzgerald, Michael - Pezzato, Jackie - Martin, Emily - Wetherell, Ed - Wang, Eric - Jacobson, Shane - Warmbier, Eric - Lockhart, Charles - Hall, Don
09:40 - 10:00	**Adaptive Optics for Starshot Beam Launch** Angel, Roger - Hyatt, Justin - Eads, Ryker - Didato, Nick
10:00 - 10:20	**From MagAO-X to GMagAO-X: extreme-AO performance demonstration and science case for the GMT** Males, Jared - Close, Laird - Guyon, Olivier
10:20 - 10:40	**On-sky performance of the GMT dispersed fringe phasing sensor prototype** Kopon, Derek - McLeod, Brian - Bouchez, Antonin - Catropa, Daniel - van Dam , Marcos - Kansky, Jan - McCracken, Kenneth - McMuldroch, Stuart - Podgorski , William - D'Arco , Joseph
10:40 - 11:10	Coffee Break

SESSION 16 - POST-PROCESSING OF AO DATA

Session chair: Denis Brousseau

11:10 - 11:30	**PSF reconstruction for integral field spectrograph OSIRIS at Keck** Ciurlo, Anna - Do, Tuan - Witzel, Gunther - Lu, Jessica - team, AIROPA
11:30 - 11:50	**PSF reconstruction for MUSE Wide Field Mode. Final on-sky performance and routine operations.** Fusco, Thierry - Bacon, Roland - Conseil, Simon - Kamann, Sebastian - Neichel, Benoit - Correia, Carlos - Martin, Olivier - Vernet, Joel - Kolb, Johann - Madec, Pierre-Yves
11:50 - 12:10	**Correcting optical distortion of NFIRAOS and IRIS by self-calibration method** Mukae, Shiro - Suzuki, Ryuji - Hayano, Yutaka - Ellerbroeck, Brent - Herriot, Glen
12:10-12:30	**Sensitivity of astrometric and photometric parameter estimation to spatial variations of the point spread function** Beltramo-Martin, Olivier - Witzel, Gunther - Correia, Carlos - Ciurlo, Anna - Turri, Paolo - Lu, Jessica
12:30 - 14:00	Lunch

POSTER SESSIONS

POSTER SESSION 1
MONDAY, JUNE 10, 2019
18:00 - 20:00

AO SYSTEMS DESIGN AND MODELLING

POSTER-SYS-019	**Error Budget for the Keck Adaptive Optics Systems** Ragland, Sam - Wizinowich, Peter - Mawet, Dimitri - van Dam, Marcos - Jolissaint, Laurent
POSTER-SYS-020	**Predicting the Performance of the Extreme-AO Instrument VLT/SPHERE via Machine Learning** Courtney-Barrer, Benjamin - Milli, Julien - Mouillet, David - Wahhaj, Zahed
POSTER-SYS-021	**Stabilizing Plate Scale versus Point Source Sensitivity for MCAO** Herriot, Glen - Suzuki, Ryuji - Véran, Jean-Pierre - Wang, Lianqi - Trancho, Gelys - Rogers, John - Andersen, David
POSTER-SYS-022	**Performances of the phasing sensors for the M4 adaptive unit** Briguglio, Runa - Pariani, Giorgio - Xompero, Marco - Riccardi, Armando - Tintori, Matteo
POSTER-SYS-023	**The Single Laser Adaptive Optics system for the METIS** Stuik, Remko - Arcier, Benjamin - Brandl, Bernhard - The METIS Consortium
POSTER-SYS-024	**Relocate Gemini Multi-Conjugate Adaptive Optics System from Chile to Hawaii: A feasibility study** Chirre, Emmanuel - Moreno, Cristian - Sivo, Gaetano - Marin, Eduardo - Lombardi, Gianluca - Van Dam, Marcos - Vergara, Vicente - Montes, Vanessa - Van der Hoeven, Michiel - Hirst, Paul - Adamson, Andy - Kleinman, Scot

POSTER-SYS-025 **Sodium layer density anisotropies as a reference for tip-tilt measurement in laser guide stars**
Rodriguez Ramos, Luis Fernando - Martinez Rey, Noelia - Alonso Sanchez, Angel - Castro Almazan, Julio - García Lorenzo, Begoña

POSTER-SYS-027 **AO Performance modelling and error budget development for GIRMOS**
Jackson, Kate - Chapman, Scott - Correia, Carlos - Véran, Jean-Pierre - Andersen, David - Lardière, Olivier - Sivo, Gaetano - Sivanandam, Suresh - Lamb, Masen

POSTER-SYS-028 **Co-phasing a Large Array of Segmented Lasers via Interferometry and Coherent Beam Combination Methods**
Mitchell, Eric - Hart, Michael

POSTER-SYS-029 **On the feasibility of using a laser guide star adaptive optics system in the daytime**
Dungee, Ryan - Chun, Mark - Hayano, Yutaka - Ragland, Sam - Wizinowich, Peter

POSTER-SYS-030 **A common RTC architecture for Gemini Observatory AO systems**
Hirst, Paul - Sivo, Gaetano - Marin, Eduardo - Goodsell, Stephen - Provost, Natalie - Montes, Vanessa - Catala, Laure - Lombardi, Gianluca

POSTER-SYS-031 **ULTIMATE-Subaru: GLAO conceptual design and project status**
Minowa, Yosuke - Rigaut, Francois - Akiyama, Masayuki - Ono, Yoshito - Clergeon, Christophe - d'Orgeville, Celine - Korkiakoski, Visa - Herrald, Nicholas - Gausachs, Gaston - Davies, Jordan - Wang, Shiang-Yu - Chou, Chi-Yi

POSTER-SYS-032 **MICADO-MAORY SCAO RTC system prototyping: assessing the real-time capability of GPU**
Ferreira, Florian - Sevin, Arnaud - Bernard, Julien - Gratadour, Damien

POSTER-SYS-033 **Ingot wavefront sensor: simulation of the pupil images**
Viotto, Valentina - Portaluri, Elisa - Arcidiacono, Carmelo - Bergomi, Maria - Di Filippo, Simone - Dima, Marco - Greggio, Davide - Farinato, Jacopo - Magrin, Demetrio - Marafatto, Luca - Ragazzoni, Roberto

POSTER-SYS-034 **MICADO MAORY SCAO: preliminary design, development plan and calibration strategies**
Clénet, Yann - Buey, Tristan - Gendron, Eric - Hubert, Zoltan - Vidal, Fabrice - Cohen, Mathieu - Chapron, Frédéric - Sevin, Arnaud - Fédou, Pierre - Barbary, Gaële - Borgo, Bruno - Huet, Jean-Michel - Blin, Alexandre - Dupuis, Olivier - Gaudemard, Julien - Ben Nejma, Saber - Gratadour, Damien - Déo, Vincent - Ferreira, Florian - Thijs, Simone - Lapeyrère, Vincent - Raffard, Jordan - Chemla, Fanny - Le Ruyet, Bertrand - Younès, Youssef - Rousset, Gérard - Zins, Gérard - Diolaiti, Emiliano - Ciliegi, Paolo - Garrel, Vincent - Rabien, Sebastian - Schubert, Josef - Hartl, Michael - Hörmann, Veronika - Davies, Richard

POSTER-SYS-035 **Vibration modeling using LBTO telemetry data**
Escarate, Pedro - Cororel, Maria - Agüero, Juan Carlos - Carvajal, Rodrigo - Christou, Julian - Hill, John - Rahmer, Gustavo - Miller, Douglas - Taylor, Greg

POSTER-SYS-036 **The COSMIC real-time control platform**
Gratadour, Damien - Rigaut, Francois - Biasi, Roberto - Jameson, Anfrew - Sevin, Arnaud - Ferreira, Florian - Perret, Denis - Guyon, Olivier - Patauner, Christian - Pescoller, Dietrich - Andrighettoni, Mario - Smith, Matthew - Glazebrook, Karl - Deller, Adam

POSTER-SYS-037 **Architecture and design of the HARMONI AO Real-Time Control System**
Younger, Edward - Basden, Alastair - Correia, Carlos - Costille, Anne - Dimoudi, Sofia - Dohlen, Kjetil - Fusco, Thierry - Jenkins, David - Larrieu, Marie - Morris, Tim - Neichel, Benoit - Pecontal, Arlette - Petit, Cyril - Sauvage, Jean-Francois - Schnetler, Hermine - Vedrenne, Nicolas

POSTER-SYS-038 **Design and performances of HARMONI LTAO NGS module**
Bardou, Lisa - Morris, Tim - Calcines-Rosario, Ariadna - Dubbeldam, Marc - Clark, Paul - Dohlen, Kjetil - Neichel, Benoit - Fusco, Thierry - Vola, Pascal - Piqueras-Lopez, Javier - Estrada, Alberto - Clarke, Fraser

POSTER-SYS-039 **High Performance Processor design for the HARMONI AO RTCS Supervisor system**
Dimoudi, Sofia - Morris, Timothy - Younger, Edward - Correia, Carlos - Petit, Cyril - Basden, Alastair - Jenkins, David - Neichel, Benoit - Fusco, Thierry - Vedrenne, Nicolas - Sauvage, Jean-Francois - Schnetler, Hermine - Bryson, Ian - Clarke, Fraser - Thatte, Niranjan - Suárez Valles, Marcos

POSTER-SYS-040 **Sky coverage assessment for MAORY**
Plantet, Cedric - Agapito, Guido - Busoni, Lorenzo - Bonaglia, Marco - Esposito, Simone - Ciliegi, Paolo

POSTER-SYS-041 **MAORY: optical configuration and expected optical performances**
Magrin, Demetrio - Ciliegi, Paolo - Busoni, Lorenzo

POSTER-SYS-042 **Post-coronagraphic contrast evaluation: comparison between a PSD-based approach and complete end-to-end simulation**
Orban de Xivry, Gilles - Absil, Olivier - Delacroix, Christian - Carlomagno, Brunella

POSTER-SYS-043 **OOMAO: Object-Oriented Matlab Adaptive Optics Simulator**
Correia, Carlos - Conan, Rodolohe - Bond, Charlotte - Ono, Yoshito - Beltramo-Martin, Olivier - Heritier, Cedric Taïssir - Brulé, Yoann - Janin-Potiron, Pierre - Schwartz, Noah - Sauvage, Jean-François

POSTER-SYS-070 **Acquisition with NFIRAOS and IRIS on TMT**
Andersen, David - Atwood, Jenny - Dunn, Jennifer - Hardy, Tim - Herriot, Glen - Veran, Jean-Pierre - Chisholm, Eric - Trancho, Gelys - Wang, Lianqi - Greffe, Timothee - Smit, Roger - Hayano, Yutaka - Suzuki, Ryuji - Larkin, James - Wright, Shelley

PATHFINDER INSTRUMENTS

POSTER-PATH-079	**Keck All Sky Precision Adaptive Optics** Chin, Jason - Wizinowich, Peter - Casey, Kelleen - Cetre, Sylvain - Lilley, Scott - Ragland, Sam - Wetherell, Ed - Lu, Jessica
POSTER-PATH-080	**Gemini Infrared Multi-Object Spectrograph Overview: A Pathfinder for an Early-Light TMT Instrument** Sivanandam, Suresh - Chapman, Scott - Simard, Luc - Hickson, Paul - Venn, Kim - Thibault, Simon - Sawicki, Marcin - Muzzin, Adam - Erickson, Darren - Lamb, Masen - Andersen, David - Brousseau, Denis - Chen, Shaojie - Correia, Carlos - Lardiere, Olivier - Lemoine-Busserolle, Marie - Peck, Alison - Sivo, Gaetano - Veran, Jean-Pierre
POSTER-PATH-081	**The MMT Adaptive optics exoPlanet characterization System (MAPS)** Hinz, Philip
POSTER-PATH-083	**The Planetary Systems Instrument: Overview of the Instrument Architecture and Opto-Mechanical Design of the Red Arm, aka SCALES** Stelter, Deno - Skemer, Andrew - Kupke, Renate - Mazin, Ben - Chun, Mark - Guyon, Olivier - Jovanovic, Nemanja - Macintosh, Bruce - Mawet, Dimitri - Team, PSI
POSTER-PATH-084	**The Fast Atmospheric Self-Coherent Camera Technique: Laboratory Results and Future Directions** Gerard, Benjamin - Marois, Christian - Galicher, Raphaël - Veran, Jean-Pierre - Baudoz, Pierre
POSTER-PATH-085	**Testing a new adaptive secondary mirror at the University of Hawaii 2.2-meter telescop** Chun, Mark - Baranec, Christoph - Lu, Jessica - Lai, Olivier - Kuiper, Stefan - Fritz, Erik - Maniscalco, Matt - Nijenhuis, Jan

POSTER-PATH-086

XAO-assisted coronagraphy with SHARK-NIR: from simulations to laboratory tests

Carolo, Elena - Umbriaco, Gabriele - Vassallo, Daniele - Farinato, Jacopo - Agapito, Guido - Bergomi, Maria - Biondi, Federico - Carlotti, Alexis - Chinellato, Simonetta - De Pascale, Marco - D'Orazi, Valentina - Esposito, Simone - Greggio, Davide - Magrin, Demetrio - Marafatto, Luca - Mesa, Dino - Pinna, Enrico - Puglisi, Alfio - Stangalini, Marco - Viotto, Valentina

POSTER-PATH-087

SHARK-NIR moving toward the end of the construction phase

Farinato, Jacopo - Bergomi, Maria - Bianco, Andrea - Biondi, Federico - Carolo, Elena - Carlotti, Alexis - Chinellato, Simonetta - De Pascale, Marco - dima, marco - D'Orazi, Valentina - Greggio, Davide - Hinz, Philip - Lessio, Luigi - Marafatto, Luca - Mesa, Dino - Mohr, Lars - Montoya, Manny - Umbriaco, Gabriele - Vassallo, Daniele - Viotto, Valentina - Zanutta, Alessio - Antoniucci, Simone - Arcidiacono, Carmelo - Bacciotti, Francesca - Baffa, Carlo - Baruffolo, Andrea - Bongiorno, Angela - Close, Laird - Di Filippo, Simone - Esposito, Simone - Farisato, Giancarlo - Guyon, Olivier - Magrin, Demetrio - Pedichini, Fernando - Pinna, Enrico - Portaluri, Elisa - Puglisi, Alfio - Santhakumari, Kalyan Kumar Radhakrishn - Ragazzoni, Roberto - Rossi, Fabio - Stangalini, Marco

POSTER-PATH-088

SHARK-VIS: the high-contrast imager in the visible for LBT

Pedichini, Fernando - Antoniucci, Simone - Li Causi, Gianluca - Mattioli, Massimiliano - Piazzesi, Roberto - Stangalini, Marco - Testa, Vincenzo - Farinato, Jacopo - Pinna, Enrico - Bergomi, Maria

POSTER-PATH-090

The Keck Fiber Injection Unit: A new avenue to spectrally characterize exoplanets

Delorme, Jacques-Robert - Jovanovic, Nemanja - Echeverri, Daniel - Mawet, Dimitri - Bond, Charlotte - Cetre, Sylvain - Wallace, James - Bartos, Randall - Lilley, Scott - Ragland, Sam - wizinowich, Peter - Wetherell, Ed - Chun, Mark - Wang, Ji - Wang, Jason - Pezzato, Jacklyn - Martin, Emily - Morris, Evan

POSTER-PATH-092 **Visible adaptive optics challenges for the new THEMIS solar facility**
Langlois, Maud - Moretto, Gil - Tallon, Michel - Thiébaut, Eric - Gelly, Bernard

POSTER-PATH-093 **Lessons learned from the Optomechanical Design of TMT NFIRAOS Subsystems at INO**
Martin, Olivier - Leclerc, Mélanie - Desnoyers, Nichola - Grenier, Martin - Lamontage, Frédéric - Cottin, Pierre - Boucher, Marc-André - Lardière, Olivier - Andersen, David - Atwood, Jenny - W.G. Byrnes, Peter - Herriot, Glenn - Fitzsimmons, Joeleff - Véran , Jean-Pierre

SCIENCE WITH AO

POSTER-SCI-118 **Astrometry of resolved stellar populations with MICADO@ELT**
Massari, Davide - Fiorentino, Giuliana - Pott, Jörg-Uwe - Arcidiacono, Carmelo - Rodeghiero, Gabriele - Fabricius, Maximilian - Davies, Richard - Tolstoy, Eline

POSTER-SCI-119 **GRAAL+HAWK-I photometric and astrometric performance**
Hibon, Pascale - Opitom, Cyrielle - Kolb, Johann - Paufique, Jerome - Kuntschner, Harald - Dobrzycka, Danuta - Petr-Gotzens, Monika - Valenti, Elena - Duhoux, Philippe - Madec, Pierre-Yves

POSTER-SCI-120 **Performance and Constraints of the Deformable Secondary Mirror in AO modes under wind conditions**
Hibon, Pascale - Duhoux, Philippe - Vernet, Elise - Andrighettoni, Mario - Madec, Pierre-Yves - Nurzia, Vittorio

POSTER-SCI-121 **Upgrade of the Laser Traffic Control Software for future collision predictions**
Duhoux, Philippe - Hibon, Pascale - Santos, Paula - Brillant, Stephane - Haeussler, Boris

POSTER-SCI-122 **Characterization of QSO host galaxies and environments with AO imaging in the ELT era**
Paiano, Simona - Arcidiacono, Carmelo - Falomo, Renato - Portaluri, Elisa - Uslenghi, Michela

POSTER-SCI-123 **The MAORY Science Operation activities**
Arcidiacono, Carmelo - Gullieuszik, Marco - Portaluri, Elisa - Cantiello, Michele - Paiano, Simona - Ciliegi, Paolo

POSTER-SCI-124 **MODHIS: a multi-object diffraction-limited high-resolution infrared spectrograph for TMT**
Mawet, Dimitri - Fitzgerald, Michael - Konopacky, Quinn - Jovanovic, Nemanja

POSTER-SCI-125 **Exoplanet detection with the SCAO mode of MAORY-MICADO: preliminary results from end-to-end simulations**
Vassallo, Daniele - Carolo, Elena - D'orazi, Valentina - Mesa, Dino - Arcidiacono, Carmelo

POSTER-SCI-126 **Using the unusable: Twilight monitoring on the US-ELT**
Conrad, Albert - Veillet, Christian - de Pater, Imke - de Kleer, Katherine

POSTER-SCI-127 **MICADO Lyot coronagraph performance study**
Huby, Elsa - Baudoz, Pierre - Vidal, Fabrice - Clénet, Yann - Gendron, Eric - Buey, Tristan - Schubert, Josef - Davies, Richard

POSTER-SCI-128 **Enhanced Resolution Imager and Spectrograph, comparing the improvements in science with respect to NACO and SINFONI**
Cortes, Angela - Davies, Ric - Feuchtgruber, Helmut

POSTER-SCI-129 **High-Contrast Imaging with METIS: how deep can we go?**
Delacroix, Christian - Carlomagno, Brunella - Pathak, Prashant - Cantalloube, Faustine - Orban de Xivry, Gilles - Absil, Olivier

POSTER-SCI-130 **Enhanced Seeing Mode at the LBT: A Method to Significantly Improve Angular Resolution over a 4'x4' Field of View**
Rothberg, Barry - Christou, Julian - Miller, Douglas - Taylor, Gregory - Thompson, Dave - Veillet, Christian

POSTER-SCI-131 **Characterizing Extrasolar Planetary Systems in Polarized Light with TMT-PSI**
Millar-Blanchaer, Max - TEAM, PLANETARY SYSTEMS IMAGER

POSTER-SCI-133 **Capabilities of a fibered imager on an extremely large telescope**
Vievard, Sebastien - Cvetojevic, Nick - Huby, Elsa - Lacour, Sylvestre - Perrin, Guy - Guyon, Olivier - Lozi, Julien - Marchis , Franck - Jovanovic, Nemanja - Schworer, Guillaume - Gauchet, Lucien - Duchene, Gaspard - Kotani, Takayuki - Lai, Olivier

POSTER-SCI-134 **Finding Another Earth In The Alpha Centauri System With TIKI: Simulation**
Blain, Célia - Marois, Christian

POSTER-SCI-135 **Deep observations with an ELT in the Global Multi Conjugated Adaptive Optics perspective**
Portaluri, Elisa - Viotto, Valentina - Ragazzoni, Roberto - Arcidiacono, Carmelo - Bergomi, Maria - Dima, Marco - Greggio, Davide - Farinato, Jacopo - Magrin, Demetrio

POSTER-SCI-136 **The ELT/HARMONI Science Simulations HSIM**
Pereira Santaella, Miguel - Routledge, Laurence

POSTER-SCI-137 **NIRPS: a stepping stone for AO-fed high-resolution spectroscopy on ELTs**
Artigau, Etienne - Blind, Nicolas - Doyon, René - Bouchy, François - Wildi, François

WAVEFRONT SENSING

POSTER-WAV-SEN-185	**Development of the Three Sided Pyramid Wavefront Sensor** Schatz, Lauren - Neichel, Benoit - Correia, Carlos - Males, Jared - Fusco, Thierry - Hart, Michael - Chambouleyron, Vincent - Janin-Potiron, Pierre
POSTER-WAV-SEN-186	**LIFT for MAVIS: how many modes to evaluate?** Brûlé, Yoann - Plantet, Cédric - Fauvarque, Olivier - Correia, Carlos - Rigaut, François - Neichel, Benoit - Fusco, Thierry
POSTER-WAV-SEN-187	**How does the position of the telescope spider affect closed-loop adaptive optics performance with a pyramid wavefront sensor?** Engler, Byron - Weddell, Steve - Le Louarn, Miska - Clare, Richard
POSTER-WAV-SEN-188	**Theory and Design of a Hybrid Wave-front Sensor for Adaptive Optics** Guthery, Charlotte - Hart, Michael

POSTER-WAV-SEN-189 **In depth analysis of Fourier-based wavefront sensors with the adaptive optics testbed LOOPS**
Janin-Potiron, Pierre - Chambouleyron, Vincent - Schatz, Lauren - Fauvarque, Olivier - El Hadi, Kacem - Sauvage, Jean-François - Correia, Carlos - Fusco, Thierry - Neichel, Benoit

POSTER-WAV-SEN-190 **Designing, Building, and Testing of a Hybrid Wavefront Sensor for Adaptive Optics**
Hamilton, Ryan - Rice, Joseph - Guthery, Charlotte - Hart, Michael

POSTER-WAV-SEN-191 **Theoretical Analysis of a Polychromatic Rayleigh Laser Guide Star**
Reinhart, Lennon - Hart, Michael

POSTER-WAV-SEN-192 **Analysis of the Island Effect for MICADO MAORY SCAO mode**
Bertrou-Cantou, Arielle - Rousset, Gérard - Gendron, Eric - Vidal, Fabrice - Deo, Vincent - Ferreira, Florian

POSTER-WAV-SEN-193 **New developments of near infrared eAPD technology for wavefront sensing at ground based telescopes, on-sky performance verification with GRAVITY and the potential of eAPDs for improving the sensitivity of large format science arrays and for deployment in space**
Finger, Gert - Baker, Ian - Eisenhauer, Frank - Ives, Derek - Casali, Mark - Engelhardt, Max - Mandla, Christopher - Weller, Harald

POSTER-WAV-SEN-194 **Demonstration on the co-phasing of optical multi-aperture telescope with dispersed Hartmann sensor**
Li, Yang - Wei, Kai - Wang , Sheng-Qian - Rao, Chang-Hui

POSTER-WAV-SEN-195 **Performance of a commercial camera with the SAPHIRA near-infrared APD array: evaluation of performance and identification of a source of noise**
James - Johnson, Robert - Byrd, M. Olivia - Gibson, William - Brown

POSTER-WAV-SEN-196 **The non-modulation pyramid wavefront sensor used in the closed-loop adaptive optics system**
Wang, Shengqian - Wei, Kai - Zheng, Wenjia - Rao, Chang-Hui

POSTER-WAV-SEN-197 **Infrared tip-tilt sensing: on-sky experience, lessons learned and unsolved problems**
van Dam, Marcos - Oberti, Sylvain - Lyke, Jim - Kolb, Johann - Cetre, Sylvain - Neichel, Benoit

POSTER-WAV-SEN-198 **SAPHIR (Sensor Achromatic Pyramid HIgh-Resolution): a new concept of reflective pyramidal wavefront sensor free from chromatic aberrations**
Chemla, Fanny - Huet, Jean-Michel - Buey, Tristan - Gaudemard, Julien - Gendron, Eric - Cohen, Mathieu - Déo, Vincent - Vidal, Fabrice

POSTER-WAV-SEN-199 **A Zernike wavefront sensor to calibrate NCPA for the high-contrast mode of HARMONI**
Carlotti, Alexis - Jocou, Laurent - henault, francois - Dohlen, Kjetil - Sauvage, Jean-François - Moulin, Thibault - Rabou, Patrick - Magnard, Yves

POSTER-WAV-SEN-200 **Specifications, Procurement and Testing of the TMT-NFIRAOS double-pyramid prisms**
Lardière, Olivier - Véran, Jean-Pierre - Densmore, Adam - Andersen, David - Atwood, Jenny - Reshetov, Vlad - Fitzsimmons, Joeleff - Ganton, Colin

POSTER-WAV-SEN-201 **Electro-Optical calibration of pupil plane modulators for pyramid WFS**
Rossi, Fabio - Briguglio, Runa - Pinna, Enrico - Puglisi, Alfio

POSTER-WAV-SEN-202 **Final design of the NFIRAOS Visible Natural guide star Wavefront sensor (VNW) for the Thirty Meter Telescope**
Cournoyer, Alain - Paradis, Simon - Larouche, Martin - Desnoyers, Nichola - Lamontagne, Frédéric - Proulx, Christian - Ollat, Charles-Adrien - Lardière, Olivier - Véran, Jean-Pierre - Herriot, Glen - Crane, Jeffrey - Densmore, Adam - Thériault, Guillaume - Grandmont, Frédéric

POSTER-WAV-SEN-203 **A low-cost, very high-order Shack-Hartmann sensor for testing TMT deformable mirrors**
Taheri Nieh, Mojtaba - Véran, Jean-Pierre - Andersen, David - Lardière, Olivier

POSTER-WAV-SEN-233 **Introducing HOPP: Heterodyne Optical Phase Probe for High Contrast Imaging**
Davis, Kristina K

POSTER-WAV-SEN-234 **Focal plane wavefront sensing and control with a vAPP coronagraph on MagAO-X using holographic modal wavefront sensing and linear dark field control**
Miller, Kelsey - Males, Jared - Guyon, Olivier - M. Close, Laird - Doelman, David - Snik, Frans - Por, Emiel - J.Wilby, Michael - Keller, Christoth - Bohlman, Chris - Van Gorkom, Kyle - Rodack, Alexander - Knight, Justin - Lumbres, Jennifer - Bos, Steven - Jovanovic, Nemanja

POSTER SESSION 2
TUESDAY, JUNE 11, 2019
18:00 - 20:00

AO DISTURBANCES CHARACTERIZATION AND MODELLING

POSTER-DIST-002	**PEPITO: atmospheric Profiling from short-Exposure focal Plane Images in seeing-limiTed mOde** Beltramo-Martin, Olivier - Bharmal, Nazim Alastair - Correia, Carlos
POSTER-DIST-003	**Enhanced atmospheric water content forecast to support infrared scientific programs at VLT and E-ELT** Turchi, Alessio - Masciadri, Elena - Martelloni, Gianluca
POSTER-DIST-005	**Site characterisation at Mount Stromlo with a single-detector stereo-SCIDAR: status update** Korkiakoski, Visa - Lingham, Marcus - Grosse, Doris - Thorn, Elliott - Copeland, Michael - Bennet, Francis - Osborn, James - Rigaut, Francois - Travouillon, Tony - d'Orgeville, Celine
POSTER-DIST-006	**How to deal with Mis-Registrations on ELT with Pyramid WFS?** Heritier, Cedric - Oberti, Sylvain - Fusco, Thierry - Neichel, Benoit - Esposito, Simone - Kasper, Markus - Madec, Pierre-Yves - Vérinaud, Christophe - Paufique, Jérôme - Le Louarn, Miska - Correia, Carlos - Sauvage, Jean-François - Kolb, Johann - Béchet, Clémentine
POSTER-DIST-007	**Optical turbulence forecasting and comparisons with daytime and nighttime measurements** Giordano, Christophe - Rafalimanana, Alohotsy - Ziad, Aziz - Aristidi, Eric - Chabé, Julien - Fanteï-Caujolle, Yan - Renaud, Catherine

POSTER-DIST-008 **Image Quality Error Budgets for the Giant Magellan Telescope**
Sitarski, Breann - Bouchez, Antonin - Conan, Rod - van Dam, Marcos - Quiros-Pacheco, Fernando - Angeli, George - McLeod, Brian

POSTER-DIST-009 **Performance Estimates for the Giant Magellan Telescope via Statistical Analysis**
Sitarski, Breann - Vogiatzis, Konstantinos - Conan, Rod - Angeli, George - Goodrich, Robert

POSTER-DIST-010 **Optimising AO systems using turbulence forecasts**
Osborn, James - Farley, Ollie - Correia, Carlos - Fusco, Thierry - Neichel, Benoit - Morris, Tim - Wilson, Richard

POSTER-DIST-011 **CATS : a new autonomous station for atmospheric turbulence characterization**
Ziad, Aziz - Chabé, Julien - Fanteï-Caujolle, Yan - Aristidi, Eric - Renaud, Catherine - Giordano, Christophe

POSTER-DIST-012 **Astronomical site monitoring: current status and ideas for the future**
Le Louarn, Miska - Sarazin, Marc - Madec, Pierre-Yves - Martayan, Christophe

POSTER-DIST-013 **Vibration correction for the Adaptive Optics Systems at the ESO VLT/VLTI**
Haguenauer, Pierre - Pettazzi, Lorenzo - Suárez Valles, Marcos - Shchekaturov, Pavel - Jeram, Bogdan

POSTER-DIST-014 **New on-sky results from FASS monitor and its applicability to dome seeing estimation**
Guesalaga, Andres - Ayancan, Boris - Gonzalez, Hector - Perera, Saavidra, Sarazin, Marc - Nacarrete, Julio - Osborn, James - Butterley Timothy - Wilson, Richard - Neichel, Benoit - El Hadi, Hacem

POSTER-DIST-015 **The evolution of the seeing quality at Cerro Pachon: a fair comparison between the GMOS image quality and the DIMM seeing**
Lombardi, Gianluca - Dennihy, Erik - Rutten, Rene - Hayward, Thomas - Fuentes, Javier

POSTER-DIST-016 **Asymmetry in Adaptive Optics PSFs**
Madurowicz, Alex - Macintosh, Bruce - Ruffio, Jean-Baptiste - Poyneer, Lisa - Bailey, Vanessa - Pueyo, Laurent - Perrin, Marshall - Chilcote, Jeffery - Nielsen, Eric

POSTER-DIST-017 **Real time turbulence profiling using Bayesian inference**
Lehtonen, Jonatan - Helin, Tapio

POSTER-DIST-018 **Non-Common Path Aberrations correction for the GTC Adaptive Optics system: calibration and compensation of static aberrations**
Montilla, Iciar - Basden, Alastair - Nuñez Cagigal, Miguel - de la Rosa, Jose Marco - Puga, Marta - Tubio Araujo, Oscar - Reyes Garcia-Talavera, Marcos

POSTER-DIST-019 **Monitoring daytime and nighttime optical turbulence profiles with the PML instrument**
Aristidi, Eric - Ziad, Aziz - Fantei-Caujolle, Yan - Chabé, Julien - Giordano, Christophe - Renaud, Catherine - Lantéri, Henri

LASER SYSTEMS FOR AO

POSTER-LAS-069 **Sodium Recoil at Starfire Optical Range**
Wyman, Keith - Ireland, David - Eickhoff, Mark - Kann, Lee - Hilburn, Eddie - Masten, Gordon - Byrd, Olivia - Lison, Frank - Bonaccini Calia, Domenico - Johnson, Robert

POSTER-LAS-070 **Progress of photon return tests with two different kind of sodium lasers**
Jin, Kai - Wei, Kai - Li, Min - Huang, Jian - Deng, Keran - Dong, Ruoxi - Bian, Qi - Zuo, Junwei - Bo, Yong - Yang, Xuezong - Fan, Tingwei - Dong, Jinyan - Zhang, Lei - Feng, Yan - Zhang, Yudong

POSTER-LAS-071 **An alternative to wide-field LGS tomography: using PPPP to improve meta-pupil sampling**
Yang, Huizhe - Bharmal, Nazim - Myers, Richard - Morris, Tim

POSTER-LAS-072 **Enhanced Laser Traffic Control System Operation Mode**
Otarola, Angel - Dumas, Christophe - Gaug, Markus - Benn, Chris - Muñoz-Tuñon, Casiana - Castro-Almazán, Julio - Cabrera-Lavers, Antonio

POSTER-LAS-073 **Dual Laser Guide Star Facility Integration and Commissioning at Mount Stromlo Observatory**
d'Orgeville, Celine - Travouillon, Tony - Webb, James - Gers, Luke - Galla, Antony - Thorn, Elliott - Rees, Emily Rose - Kennedy, Gerard - Martinez Rey, Noelia - Fetzer, Gregory - Rako, Steve - Blundell, Mark - Gao, Yue - Smith, Craig

POSTER-LAS-074 **Uplink Wavefront Corrector System: On-sky performance validation**
Martinez, Noelia - Rodriguez Ramos, Luis Fernando - Sodnik, Zoran

POSTER-LAS-075 **Reviving ALTAIR LGS mode with the Toptica laser upgrade**
Catala, Laure - Donahue, Jeff - Schneider, Thomas - Sivo, Gaetano - Marin, Eduardo - Ebbers, Angelic - Cunningham, Christy - Ball, Jesse - Hirst, Paul - Bassett, John - Anderson, David - Smith, Adam - Ferrara, Jocelyn - Stephens, Andrew - Dupuy, Trent

POSTER-LAS-076 **Laser Guide Star Facility for LTAO and GLAO at Subaru Telescope**
Mieda, Etsuko - Minowa, Yosuke - d'Orgeville, Celine - Tanaka, Yoko - Herrald, Nicholas - Doi, Yoshiyuki - Ramos, Lucio - Wung, Matthew - Clergeon, Christophe - Ono, Yoshito - Hattori, Takashi - Hayano, Yutaka - Akiyama, Masayuki - Yoshida, Hiroshige

POSTER-LAS-077 **CW lidar technique for the ELT**
Hellemeier, Joschua - Bonaccini Calia, Domenico - Hickson, Paul - Pfrommer, Thomas

POSTER-LAS-078 **Preliminary Design of the Laser Guide Star Facility for the Gran Telescopio Canarias**
Reyes Garcia-Talavera, Marcos - Sánchez-Capuchino, Jorge - Simoes, Roberto - Montilla, Iciar - Hernández, Elvio - Puga, Marta - Tenegi, Fabio - Tubio, Oscar - Penate, Jose - Rosich, Josefina - Marco, Jose - Nuñez Cagigal, Miguel - Patron, Jesus - Lopez, Roberto - Rodriguez-Ramos, Luis Fernando - Sanchez Bejar, Victor

PATHFINDER INSTRUMENTS

POSTER-PATH-094 **GeMS 2.0: are we there yet?**
Marin, Eduardo - Sivo, Gaetano - Lombardi, Gianluca - Garrel, Vincent - Neichel, Benoit - van Dam, Marcos - Rigaut, Francios - Moreno, Cristian - Chirre, Emmanuel - Montes, Vanessa - Perez, Gabriel - Ebbers, Angelic - Collins, Paul - Vergara, Vicente - Toro, Eduardo - Diaz, Pablo - Chinn, Brian - Birchard, Mariah - Figueroa, Carlos - Donahue, Jeff - Provost, Natalie - Gigoux, Pedro - Price, Ian - Herrald, Nick - Bennet, Francis - Carrasco, Rodrigo - Lazo, Manuel - Rutten, Rene - d'Orgeville, Celine - Hirst, Paul

POSTER-PATH-095 **The AOF in operation**
Kolb, Johann

POSTER-PATH-096 **Experiments to recover the uplink and downlink atmospherically induced tip-tilt from the laser guide star**
Bonaccini Calia, Domenico - Mata Calvo, Ramon - Osborn, James - Centrone, Mauro - Alaluf, David - Hellemeier, Joshua - Reeves, Andrew - Townson, Matthew - Perdigues Armengol, Josep Maria - Hackenberg, Wolfgang - Barrios, Ricardo - Morris, Tim

POSTER-PATH-097 **Optical Design of GIRMOS, an Adaptive Optics-fed Integral-Field Spectrograph for the Gemini Telescope**
Chabot, Tristan - Brousseau, Denis - Thibault, Simon - Sivanandam, Suresh - Chen, Shaojie

POSTER-PATH-098 **CANARY: An on-sky instrument development test bench open to the community**
Morris, Tim - Gendron, Eric - Rousset, Gerard - Bonaccini Calia, Domenico - Bardou, Lisa - Centrone, Mauro - Osborn, James

POSTER-PATH-099 **New NIR spectro-polarimetric modes for the SCExAO instrument**
Lozi, Julien - Guyon, Olivier - Jovanovic, Nemanja - Norris, Barnaby - Groff, Tyler - Chilcote, Jeffrey - Kasdin, Jeremy - Kudo, Tomoyuki - Tamura, Motohide - Zhang, Jin - Bos, Steven - Snik, Frans - Doelman, David - Mazin, Ben - Walter, Alex - Vievard, Sebastien - Sahoo, Ananya - Martinache, Frantz

POSTER-PATH-100 **ULTIMATE-START: LTAO Experiment at Subaru**
Ono, Yoshito - Akiyama, Masayuki - Minowa, Yosuke - Mieda, Etsuko - Mitsuda, Kazuma - Sakurai, Daiki - Ogane, Hajime - Oomoto, Kaoru - Oya, Shin - Yamamuro, Tomoyasu

POSTER-PATH-101 **Wide-field ground-layer performance with `imaka at the University of Hawaii 2.2-meter telescope**
Chun, Mark - Lu, Jessica - Lai, Olivier - Abdurrahman, Fatima - Service, Max - Fohring, Dora - Baranec, Christoph - Dungee, Ryan

POSTER-PATH-102 **Clear 2019 ' more observations of the sun with MCAO...**
Schmidt, Dirk - Gorceix, Nicolas - Goode, Phil - Marino, Jose - Rimmele, Thomas

POSTER-PATH-103 **Modeling the lenslet array spectra of TMT-IRIS integral field spectrograph**
Surya, Arun - Kupke, Renate - Rundquist, Nils-Erik - Larkin, James - Wright, Shelley - Chisholm, Eric

POSTER-PATH-105 **AO-assisted fiber-fed spectroscopy on ELTs: the alternative path proposed by NIRPS at La Silla**
Blind, Nicolas - Artigau, Etienne

POSTER-PATH-106 **Progress update on the MOSAIC, the ELT multi-object spectrograph**
Le Mignat, David - Jagourel, Pascal - Morris, Timothy

POSTER-PATH-107 **Results from Microwave Kinetic Inductance Detectors for Exoplanet Direct Imaging**
Walter, Alex B

POSTER-PATH-108 **Assembly, Partial Integration and Tests Philosophy at INO of several components for the Science Path, Calibration, NGS and LGS sub-systems of NFIRAOS, the TMT AO Facility**
Martin, Olivier

POSTER-PATH-109 **K-mirror prototype for MICADO SCAO module**
Thijs, Simone

WAVEFRONT RECONSTRUCTION

POSTER-WAV-REC-155 **Feasibility of standard and novel solvers in atmospheric tomography for the ELT**
Stadler, Bernadett - Ramlau, Ronny - Biasi, Roberto

POSTER-WAV-REC-156 **The Keck near-infrared pyramid wavefront sensor: wavefront controller design and performance**
Cetre, Sylvain - Bond, Charlotte - Wizinowich, Peter - Mawet, Dimitri - Chun, Mark - Guyon, Olivier - Wetherell, Ed - Ragland, Sam - Lilley, Scott - Jovanovic, Nemanja - Delorme, Jacques - Wallace, Kent - Lockhart, Charles - Wambier, Eric - Echeverri, Daniel - Goebel, Sean

POSTER-WAV-REC-157 **Adaptive Optics with a pyramid wavefront sensor in the visible versus near-infrared**
Shatokhina, Luliia - Hutterer, Victoria - Obereder, Andreas - Ramlau, Ronny

POSTER-WAV-REC-158 **A New SCAO Control Concept Based on Mechanical Mirror Modes for METIS**
Neureuther, Philip Lucas - Bertram, Thomas - Sawodny, Oliver

POSTER-WAV-REC-159 **Active minimization of non-common path aberrations using a self-coherent camera for imaging exoplanetary systems**
Singh, Garima - Galicher, Raphael - Baudoz, Pierre - Potier, Axel - Dupis, Olivier - Ortiz, Manuel

POSTER-WAV-REC-160 **Atmospheric tomography with pyramid wavefront sensors**
Raffetseder, Stefan - Obereder, Andreas - Ramlau, Ronny - Shatokhina, Iuliia

POSTER-WAV-REC-162 **Model-based wavefront reconstruction tested on the LOOPS bench**
Hutterer, Victoria - Fauvarque, Olivier - Janin-Potiron, Pierre - Shatokhina, Iuliia - Chambouleyron, Vincent - Correia, Carlos - Obereder, Andreas - Raffetseder, Stefan - Fusco, Thierry - Neichel, Benoit

POSTER-WAV-REC-163 **Adaptive Optics Hard and Soft Real-Time Computing Developments at ESO**
Suárez Valles, Marcos - Kornweibel, Nick - Marchetti, Enrico - Kamp, Poul-Henning - Pedersen, Niels Hald - Donaldson, Robert - Jeram, Bogdan - Barr, David - Rosenquist, Calle

POSTER-WAV-REC-164 **A Phasing testbed for the Giant Magellan Telescope**
Travouillon, Tony - Lingham, Marcus - Bouchez, Antonin - Gausachs, Gaston - Munro, Josephine

POSTER-WAV-REC-165 **Matrix-free real-time wave-front reconstruction with pyramid sensors**
Correia, Carlos - Fauvarque, Olivier - Hutterer, Victoria - Shatokhina, Iuliia - Bond, Charlotte

POSTER-WAV-REC-166 **The impact of different wavefront predictors on SPHERE AO performance**
van Kooten, Maaike - Doelman, Niek - Kenworthy, Matthew - Kasper, Markus

POSTER-WAV-REC-167 **Zonal Multi-Layer Predictive Control for Multi-Conjugate Adaptive Optics**
Cranney, Jesse - Rigaut, Francois - De Dona, Jose - Korkiakoski, Visa

POSTER-WAV-REC-168 **Multi-Conjugate Adaptive Optics Real Time Considerations for Predictive Control**
Cranney, Jesse - De Dona, Jose - Rigaut, Francois - Korkiakoski, Visa

POSTER-WAV-REC-169 **METIS AO RTC Prototype**
Kulas, Martin - Steuer, Horst - Bertram, Thomas - Briegel, Florian - Neureuther, Philip

POSTER-WAV-REC-170 **Wavefront Sensor Response for Mirror Phasing under Turbulence**
Kellerer, Aglae - Holzloehner, Ronald - Cheffot, Anne Laure - Lévêque, Samuel

POSTER-WAV-REC-172 **Acefast': CPU based RTC solution for AO systems control**
Martin, Bruno - Schimpf, Armin - Charton, Julien

POSTER-WAV-REC-173 **A prototype architecture for ELT-scale MCAO and LTAO based on many core CPU technologies**
Jenkins, David - Basden, Alastair - Myers, Richard

POSTER-WAV-REC-174 **Performance of the optimal grouping method for atmospheric layer compression**
Auzinger, Günter

POSTER-WAV-REC-175 **Reducing bandwidth error by predicting wavefronts using long short-term memory network**
Liu, Xuewen - Morris, Tim - Saunter, Chris - De Cos Juez, Francisco Javier - Gonzalez-Gutierrez, Carlos

POSTER-WAV-REC-176 **Inverse problems and deep learning in predictive control for adaptive optics**
Nousiainen, Jalo - Helin, Tapio

POSTER-WAV-REC-178 **The upgrades of the NIRC2 Science Instrument for High Contrast Imaging**
Ragland, Sam - Mawet, Dimitri - Alvarez, Carlos - Bond, Charlotte Z. - Cetre, Sylvain - Delorme, Jacques-Robert - Lilley, Scott - Jovanovic, Nemanja - Ruane, Garreth - Absil, Olivier - Chun, Mark - Matthews , Keith - Guyon, Olivier - Karlsson, Michael - Millar-Blanchaer, Maxwell - Taheri, Mojtaba - Wallace, J. Kent - Wetherell, Ed - Wizinowich, Peter

POSTER-WAV-REC-179 **Imaging habitable planets in optical/NIR with large ground-based telescopes: WFS/C challenges, opportunities and R&D activities**
Guyon, Olivier - Chun, Mark - Fitzgerald, Michael - Jovanovic, Nemanja - Mazin, Benjamin - Mawet, Dimitri - Macintosh, Bruce - Skemer, Andy - Lozi, Julien - Males, Jared - Close, Laird - Sevin, Arnaud - Gratadour, Damien

POSTER-WAV-REC-180 **Subaru AO188 New Real Time System**
Clergeon, Christophe - Minowa, Yosuke - Olivier, Guyon - Ono, Yoshito - Etsuko, Mieda - Nour, Skaf - Yutaka, Hayano - Takashi, Hattori - Philip, Tait

POSTER-WAV-REC-181 **Demonstrating predictive wavefront control at Keck II**
Jensen-Clem, Rebecca - McEwen, Eden - Ansdell, Megan - Mawet, Dimitri - Cetre, Sylvain - Ragland, Sam - Wizinowich, Peter - Graham, James

POSTER-WAV-REC-182 **Adaptive gain control for adaptive optics closed loop**
Flanagan, Michael - Montera, Dennis - Brown, James - Steinbock, Michael

POSTER-WAV-REC-183 **Wavefront phase reconstruction with artificial neural networks for Solar observations**
García Riesgo, Francisco - González Gutiérrez, Carlos - Suárez Gómez, Sergio Luis - Fernández, Covadonga - Asensio Ramos, Andrés - Montoya Martínez, Luz María - Basden, Alastair - Townson, Matthew - Morris, Timothy - Collados Vera, Manuel - de Cos Juez, Francisco Javier

POSTER-WAV-REC-184 **The Minuscule Extremely Large Telescope (MELT) for Wavefront Control, Phasing, and Telescope Control validation - Design and First Results**
Pfrommer, Thomas - Lewis, Steffan - Lévêque, Samuel - Bonnet, Henri - Cheffot, Anne-Laure - Frank, Christoph - Kornweibel, Nick - Kosmalski, Johan - La Penna, Paolo - Spyromilio, Jason

POSTER SESSION 3
THURSDAY, JUNE 13, 2019
16:00 - 18:00

AO SYSTEMS DESIGN AND MODELLING

POSTER-SYS-044 **Atmospheric profiling by generalized SLODAR methods**
Lehtonen, Jonatan - Correia, Carlos - Fusco, Thierry - Helin, Tapio - Neichel, Benoit

POSTER-SYS-045 **Preliminary Model for Radiometric Design and Analysis of the Breakthrough Starshot Initiative** Rice, Joseph - Hamilton, Ryan - Bowers, Kade - Hart, Michael

POSTER-SYS-046 **Voice-coil array development for a deformable mirror**
Luder, Ryan - Hart, Michael - Pavlica, Krysta - Fehlberg, Olivia

POSTER-SYS-047 **MAORY the Adaptive Optics module for ELT: design overview**
Ciliegi, Paolo

POSTER-SYS-048 **MICADO Spectroscopic SCAO metrology system**
Garrel, Vincent - Davies, Richard - Schubert, Josef - Hartl, Michael - Hörmann, Veronika - Rabien, Sebastian - Sturm, Eckhard - Barl, Lothar - Fabricius, Maximilian - Gemperlein, Hans - Geis, Norbert - Mandla, Christopher - Rosensteiner, Matthias - Ziegleder, Julian

POSTER-SYS-050 **Adaptive-optics performance limits with pyramids**
Correia, Carlos - Fauvarque, Olivier - Bond, Charlotte - Chambouleyron, Vincent - Janin-Potiron, Pierre - Sauvage, Jean-François - Fusco, Thierry

POSTER-SYS-051 **The Current Optical and Mechanical Design for the GMT High-Contrast Exoplanet Instrument GMagAO-X**
Close, Laird - Males, Jared - Guyon, Olivier - Bouchez, Antonin

POSTER-SYS-052 **Optical design trade-off study for the AO module of MAVIS**
Greggio, Davide - Di Filippo, Simone - Magrin, Demetrio - Schwab, Christian - Viotto, Valentina - Busoni, Lorenzo - Esposito, Simone - Ragazzoni, Roberto - Fusco, Thierry - Benoit, Neichel - Pinna, Enrico - Rigaut, François - Ellis, Simon - Arcidiacono, Carmelo - Bergomi, Maria - Biondi, Federico - Chinellato, Simonetta - Farinato, Jacopo - Marafatto, Luca - Portaluri, Elisa - Santhakumari, Kalyan - Vassallo, Daniele

POSTER-SYS-054 **Analyzing the Viability of Satellite Laser Guide Stars for Breakthrough Starshot**
Noyes, Matthew - Hart, Michael

POSTER-SYS-055 **High Contrast Imaging preliminary performance simulations for the Giant Magellan Telescope**
Quiros-Pacheco, Fernando - Males, Jared - Bouchez, Antonin - Conan, Rodolphe

POSTER-SYS-056 **IRIS OIWFS Opto-Mechanical Design Update**
Atwood, Jenny - Hoff, Brian - Andersen, David - Crane, Jeffrey - Dunn, Jennifer

POSTER-SYS-057 **Performance of Multi-Conjugate Adaptive Optics System in Solar Telescope DKIST**
Marino, Jose - Schmidt, Dirk

POSTER-SYS-058 **Vibration measurement in astronomical observatories toward robust AO and instrument designs**
Byrnes, Peter - Thompson, Hugh

POSTER-SYS-059 **Status of the AO systems at the LBT - Paving the Way for ELTs**
Christou, Julian - Brusa, Guido - Cavallaro, Alessandro - Lefebvre, Michael - Miller, Douglas - Rahmer, Gustavo - Taylor, Gregory - Veillet, Christian - Zhang, Xianyu - Esposito, Simone - Pinna, Enrico - Hinz, Phillip - Vaz, Amali - Herbst, Thomas - Rabien, Sebastian

POSTER-SYS-060 **Extremely Bright Guide Stars for ExAO using an Orbital Constellation**
Thompson, William - Marois, Christian

POSTER-SYS-061 **The Final Design of NFIRAOS**
Andersen, David - Herriot, Glen - Atwood, Jenny - Byrnes, Peter - Crane, Jeff - Densmore, Adam - Dunn, Jennifer - Fitzsimmons, Joeleff - Hardy, Tim - Jackson, Kate - Kerley, Dan - Lardiere, Olivier - Ricard, Coba - Smith, Malcolm - Stocks, Jonathan - Veran, Jean-Pierre - Boyer, Corinne - Gilles, Luc - Trancho, Gelys - Wang, Lianqi

POSTER-SYS-062 **Satellite Laser Guide Stars for Large Aperture Segmented Ground Telescopes**
Clark, James - Douglas, Ewan - Males, Jared - Xin, Yeyuan - Morgan, Rachel - Allan, Gregory - Lumbres, Jennifer - Cahoy, Kerri

POSTER-SYS-063 **Precision Photometric Calibration with Satellite Speckles**
Sahoo, Ananya - Guyon, Olivier - Lozi, Julien - Vievard, Sebastien - Chilcote, Jeffrey - Groff, Tyler - Minowa, Yosuke

POSTER-SYS-064 **To interfere or not to interfere: a question LBTO will have to answer soon!**
Veillet, Christian - Christou, Julian

POSTER-SYS-065 **The concept of the MCAO/GLAO upgrade of DKIST**
Schmidt, Dirk - Rimmele, Thomas - Marino, Jose - Johnson, Luke - Hegwer, Steve - Gorceix, Nicolas

POSTER-SYS-066 **OPTICON: AO networking**
Osborn, James - Beuzit, Jean-Luc - Corriea, Carlos - Garcia, Paulo - Gendron, Eric - Kulscar, Caoline - Morris, Tim - Raynaud, Henri-Francois - Rousset, Gerard

POSTER-SYS-067 **The real time MCAO Solar demonstrator for the EST**
Montoya Martinez, Luz Maria - Zhang, Langqiang - Mangharam Chulani, Haresh - Rodríguez Delgado, Horacio - Vaz, Txinto - Mato , Angel - Collados Vera, Manuel

POSTER-SYS-068 **Linear Parameter Varying control for Adaptive Optics**
Cranney, Jesse - De Dona, Jose - Rigaut, Francois - Korkiakoski, Visa

POSTER-SYS-069 **Preliminary Design of the MAORY Calibration and Test Unit (CTU)**
Di Antonio, Ivan - Di Rico, Gianluca - Dolci, Mauro - Valentini, Angelo - Di Cianno, Amico - Ciliegi, Paolo

POST-PROCESSING OF AO DATA

POSTER-POST-PR-109 **Point Spread Function Reconstruction based on Deep Learning**
Jia, Peng - Cai, Bojun - Huang, Yi

POSTER-POST-PR-110 **Development of PSF reconstruction for first light instruments on the ELT**
Wagner, Roland - Ramlau, Ronny - Shatokhina, Iuliia - Hutterer, Victoria - Niebsch, Jenny

POSTER-POST-PR-112 **The MICADO/MAORY PSF reconstruction service**
Rosensteiner, Matthias - Wagner, Roland - Davies, Ric - Garrel, Vincent - Verdoes Kleijn, Gijs - Vulcani, Benedetta - Zeilinger, Werner

POSTER-POST-PR-113 **Overview of PSF modelling techniques for adaptive-optics assisted ELT instruments**
Beltramo-Martin , Olivier - Wagner, Roland - Fusco, Thierry - Correia, Carlos - Neichel, Benoit - Ramlau, Ronny

POSTER-POST-PR-114 **PRIME: Psf Reconstruction and Identification for Multiple sources characterization Enhancement**
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Sunday, June 9	Monday, June 10	Tuesday, June 11	Wednesday, June 12	Thursday, June 13	Friday, June 14
	Registration	Registration	Registration	Registration	Registration
	SESSION 1 *Room 306AB*	SESSION 5 *Room 306AB*	SESSION 9 *Room 306AB*	SESSION 12 *Room 306AB*	SESSION 15 *Room 306AB*
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