

# MOSAIC 2019

Science and surveys with the ELT Multi-Object Spectrograph



## Monday 11 March 2019

- 19:00 *Welcome drinks (at the Marsilius Kolleg)*

## Tuesday 12 March 2019

### Session 1: MOSAIC in the ELT context

- 09:20 **Welcome** - E. Grebel (ARI, Heidelberg)
- 09:30 **ELT-MOSAIC: Overall status** - F. Hammer (GEPI, Paris)
- 10:00 **ELT-MOSAIC: current design and trade-offs** - P. Jagourel (GEPI, Paris)
- 10:30 **The ELT instrumentation plan** - M. Cirasuolo (ESO, Garching)

11:00-11:30: Coffee break

- 11:30 **MOSAIC science developments since end of Phase A** - C. Evans (UK-ATC, Edinburgh)
- 12:00 **The multi-object mode of the spectrograph NIRSpec on-board JWST** - P. Ferruit (ESA-Noordwijk)
- 12:30 **Spectroscopy with the Giant Magellan Telescope** - M. Colless (ANU, Canberra)

13:00-14:00: Lunch

### Session 2 - First Galaxies

- 14:00 **The Epoch of Reionization in the ELT Era** - P. Oesch (Geneva Observatory)
- 14:30 **Dissecting HeII emitters: spectral templates for sources of the cosmic dawn** - J. Iglesias Páramo (Granada University)
- 15:00 **First stars and first galaxies** - S. Salvadori (Florence University)

15:30-16:00: Coffee break

- 16:00 **Globular clusters formation at high redshift** A. Renzini (INAF - Padova)
- 16:30 **Deep Fields with MUSE** - L. Wisotzki (AIP, Potsdam)
- 17:00 **Evolutionary pathways of star forming galaxies since  $z \sim 5$  as inferred from VUDS** - L. Tasca (LAM, Marseille)

## Wednesday 13

- 09:30 **Disentangling Mergers and Disks in High-z IFU Observations & STScI's Possible Role in MOSAIC** - S. Kassin (STScI, Baltimore)
- 10:00 **Galaxy evolution and AGN feedback in the context of MOSAIC** C. Harrison (ESO, Garching)
- 10:30 **Supermassive black holes with MOSAIC: tracing the evolution across galaxy masses** D. Krajnović (AIP, Potsdam)

11:00-11:30: Coffee break

### Session 3: - Resolved stellar populations (Galactic)

- 11:30 **Metal-poor stars** - P. Bonifacio (GEPI, Paris)
- 12:00 **The Galactic bulge** - N. Ryde (Lund Observatory)
- 12:30 **Chemical evolution and MOS observations** - Cristina Chiappini (AIP, Potsdam)

13:00-14:00: Lunch

### Session 4 - Evolution of galaxies (I) and IGM

- 14:00 **Modelling synthetic nebular emission in cosmological simulations** - M. Hirschmann (Vienna University)
- 14:30 **Galaxies at high redshift** - S. Price (MPE, Garching)
- 15:00 **The Star-Formation Properties of the Observed and Simulated AGN Universe: BAT vs EAGLE** - T. Jackson (ARI, Heidelberg)

15:30-16:00: Coffee break

- 16:00 **Chemodynamics of low-mass galaxies at cosmic noon** - R. Sanchez-Janssen (UK-ATC, Edinburgh)
- 16:30 **The Circum-Galactic Medium: Gas Kinematics and Metallicity Mapping** - C. Peroux (LAM, Marseille)
- 17:00 **Simulating MOSAIC science: Ly-alpha forest tomography** - J. Japelj (API, Amsterdam)

19:00: *Conference dinner: "Zum Roten Ochsen" restaurant (regular or vegetarian menu)*

## Thursday 14

### Session 5 - Resolved stellar populations (extragalactic)

- 09:30 **Massive stars** - A. de Koter (API, Amsterdam)
- 10:00 **The evolution of the most massive stars in the LMC, SMC and beyond** - N. Castro (AIP, Potsdam)
- 10:30 **Dwarf galaxies in the Local Group and beyond - chemo-dynamical evolution with MOSAIC** - A. Koch (ARI, Heidelberg)

11:00-11:30: Coffee break

- 11:30 **NLTE spectroscopic analyses** - M. Bergemann (MPIA, Heidelberg)
- 12:00 **ATHOS, a cross survey tool for determining stellar parameters** - M. Hanke (ARI, Heidelberg)
- 12:30 **Extragalactic stellar tidal streams as dark matter probes** - D. Martinez Delgado (ARI, Heidelberg)

13:00-14:00: Lunch

### Session 6: Evolution of galaxies (II)

- 14:00 **Dark Matter/Rotation curve** - A. Bosma (LAM, Marseille)
- 14:30 **Classical Cepheids as stellar populations tracers and primary distance indicators - The case for  $H_0$**  - S. Mancino (ESO, Garching)
- 15:00 **Cosmology with Galaxy Cluster Phase Spaces** - C. Miller (University of Michigan, Ann Arbor)

15:30-16:00: Coffee break

- 16:00 **JWST and The Cosmic Evolution Early Release Science (CEERS) Survey** - N. Pirzkal (STScI, Baltimore)
- 16:30 **ELT/MOSAIC survey of dynamical and stellar properties of galaxies at  $z=1$**  - B. Ziegler (Vienna University)

19:00: *Guided tour to the Heidelberg Castle*

**Friday 15**

*Session 7: Round table: surveys*

- 09:30: **Lessons learnt from the CALIFA survey** - M. Lyubenova (ESO, Garching)
- 10:00: **Lessons learnt from the GALAH and Gaia-ESO surveys** - K. Lind (MPIA, Heidelberg)
- 10:30: **Lessons learnt from the WEAVE and 4MOST surveys** - V. Hill (OCA, Nice)

11:00-11:30: Coffee break

- 11:30: **Round table**

13:00-14:00: Lunch