



Third Announcement

<http://cosmo21.cosmostat.org>

The third COSMO21 conference will be held in

Valencia, Spain, May 23-25, 2018

Rationale: The dialogue between astronomers and statisticians during the last 20 years has been fruitful and has been the origin of a new discipline that is now widely called Astrostatistics. In addition to actual data challenges, the cosmological community is preparing big surveys such as LSST, Euclid and SKA. These examples highlight the big current role and even bigger future role of archival data in astrophysics research.

Keynote speakers

- **Cosmic Microwave Background** Jo Dunkley (USA / Princeton)
- **Bayesian Methodology** Jens Jasche (Germany / TUM)
- **Deep Learning** Stephane Mallat (France / ENS)
- **Weak Lensing** Rachel Mandelbaum (USA / Carnegie Mellon)
- **Gravitational Waves** Samaya Nissanke (The Netherlands / Radboud University)

Invited speakers

- **Radio Survey** Stefano Camera (Italy / Torino Univ)
- **Intensity Mapping** Tzu-Ching Chang (USA / JPL)
- **Machine Learning** Francois Lanusse (USA / CMU)
- **Bayesian Methodology** Michelle Lochner (South Africa / AIMS)
- **Large scale structures** Elisabeth Krause (USA / Stanford)

Topics

- Cosmic Microwave Background, Weak lensing, Large scale structure, High redshift supernovae, Mapping high-z 21-cm radiation, Lyman-alpha forest, Gravitational waves
- Astronomical discovery from overwhelmingly large datasets
- Statistical methods used in astronomical data analysis, *e.g.*: Bayesian methods: evidence, model selection, multivariate classification and clustering; Sparsity: wavelets, compressive sampling; Machine learning

SOC: B. Basset, V. Charmandaris, E. Feigelson, A. Heavens, S. Ho, A. Krone-Martins, F. Leclercq, V. Martinez, H. Peiris, V. Pettorino, E. Sellentin, D. Spergel, J.-L. Starck, L. Verde, Y. Zhang

ADA IX Summer School (<http://ada9.cosmostat.org>)

A summer school on Astronomical Data Analysis (ADAIX) will take place just before the conference (20-22 May), at the same venue and the COSMO21 registration includes the possibility to participate in the ADAIX Summer School. Three review talks and three tutorials will be given on Machine learning, Bayesian methodology and Sparsity.

Deadline for abstract submission: 16 February 2018

Deadline for early registration: 30 March 2018