

Monday, May 30th

9:00-10:00	School Lecture A1: Model specification and likelihood formulation (D. Hogg)
10:00-11:00	School Lecture A2: Model complexity and choice (D. Hogg)
11:00-11:30	Coffee break
11:30-12:30	School Lecture B1: Time-domain analysis (S. Aigrain)
12:30-13:30	School Lecture B2: Frequency analysis (S. Aigrain)
13:30-15:00	Lunch
15:00-15:45	Keynote talk: Science with Gaia: how will we deal with a complex billion-source catalogue and data archive? Anthony Brown (Leiden University, Netherlands)
15:45-16:10	Efficient calculation of covariances for astrometric data in the Gaia Catalogue (B. Holl)
16:10-16:35	The Generalized Stellar Parametrizer with Gaia Photometry Data (C. Liu)
16:35-16:45	Efficient use of simultaneous multi-band observations for variable star analysis (M. Suveges)
16:45-16:55	Bayesian parameter estimation for unresolved Gaia binaries (P. Tsalmantza)
17:00-17:30	Coffee Break
17:30-18:30	Keynote talk: Statistical methods in High Energy Physics and their implementation for Higgs Search and Dark Matter Search. Eilam Gross (Weizmann Institute, Israel)
18:30-18:55	The Discrete Source Classifier in Gaia-Apsis (K. Smith)
18:55-19:05	Distributed Genetic Algorithm for Region of Interest selection in Gaia RVS spectra. Application to ANN parametrization (D. Fustes)

Tuesday, May 31st

9:00-10:00	School Lecture B3: Ensembles of time series (S. Aigrain)
10:00-11:00	School Lecture B4: Hands-on session (S. Aigrain)
11:00-11:30	Coffee break
11:30-12:30	School Lecture A3: (pair-coding) Model selection workshop (D. Hogg)

12:30-13:30	School Lecture A4: (pair-coding) workshop continued (D. Hogg)
13:30-15:00	Lunch
15:00-15:45	Keynote talk: Recent Advances in cosmological Bayesian model comparison Roberto Trotta (Imperial College London, UK)
15:45-16:10	Bayesian reconstruction of the cosmological large scale structure (F. Kitaura)
16:10-16:35	Statistical analysis of caustic crossing in multiply imaged quasars (T. Mediavilla)
16:35-16:45	The distribution of galaxies in spectral space (Y. Ascasíbar)
16:45-17:15	Coffee Break
17:15-18:00	Keynote talk: The Art of Data Science Matthew Graham (Center for Advanced Computing Research, California Institute of Technology, USA)
18:00-18:25	Automated data analysis and data mining in large spectroscopic sky surveys (N. Christlieb)
18:25-19:15	Discussion forum: The problem of model specification, comparison and selection in Astronomy. (Chairman: F. Kitaura)

Wednesday, June 1st

9:00-10:00	School Lecture C1: How to store a petabyte (M. Graham)
10:00-11:00	School Lecture C2: How to work with a petabyte (M. Graham)
11:00-11:30	Coffee break
11:30-12:30	School Lecture D1: what is data mining (G. Longo)
12:30-13:30	School Lecture D2: feature selection and dimensionality reduction (G. Longo)
13:30-15:00	Lunch
15:00-15:45	Keynote Talk: Astronomical Surveys: from SDSS to LSST Robert Lupton (Princeton University, USA)
15:45-16:10	Overcoming Sample-Selection Bias in Variable Star Classification (J. Richards)

16:10-16:35	Random forest automated supervised classification of hipparcos periodic variable stars (P. Dubath)
16:35-17:00	Classification of Variable Stars with Poorly Sampled Light Curves (J. Long)
17:00-17:30	Coffee Break
17:30-18:15	Keynote Talk: Learning to disentangle Exoplanet signals from correlated noise Suzanne Aigrain (Oxford University, UK)
18:15-18:40	Handling imbalanced datasets in multistage classification (M. López)
18:40-19:05	
19:05-19:15	Discussion forum: systematic biases in the training of learning algorithms due to the training sets.
19:15-19:25	

Thursday, June 2nd

9:00-10:00	School Lecture E1: The Sampling Theorem and Image Resampling (R. Lupton)
10:00-11:00	School Lecture E2: Object Detection and Measurement as Statistical Estimation (R. Lupton)
11:00-11:30	Coffee break
11:30-12:30	School Lecture C3: How to analyze a petabyte (M. Graham)
12:30-13:30	School Lecture C4: Hands-on session (M. Graham)
13:30-15:00	Lunch
15:00-15:45	Keynote talk: Exoplanet demography, quasar target selection, and probabilistic redshift estimation: Hierarchical models for density estimation, classification, and regression. David Hogg (New York University, USA)
15:45-16:10	Probabilistic description of stellar ensembles (M. Cerviño)
16:10-16:35	A new approach to the optimization of the extraction of astrometric and photometric information from multi-wavelength images in the cosmological field. (M.J. Márquez)
16:35-15:45	Spectral Classification of Galaxies and its relationship with galaxy morphology (J. Sánchez Almeida)

16:45-16:55	Adjustment of Experimental Data to Specific Functional Forms Using Particle Swarm Algorithm: Rotational Curves of Spiral Galaxy as Case of Study (M. Cárdenas-Montes)
17:00-17:30	Coffee Break
17:30-18:15	Keynote talk: Astroinformatics and data mining: how to cope with the data tsunami Giuseppe Longo (Federico II University, Italy)
18:15-18:35	Utilizing Astroinformatics to maximize the science return of the next generation Virgo Cluster Survey (N. Ball)
18:35-18:55	Data Mining of MultiDark Simulation (A. Partl)
18:55-19:15	The application of RapidMiner in the IceCube experiment (T. Ruhe)
19:15-19:30	Data management at gaia data processing centers (P. de Teodoro)

Friday, June 3rd

9:00-10:00	School Lecture D3: classification tasks and supervised methods (G. Longo)
10:00-11:00	School Lecture D4: clustering methods (G. Longo)
11:00-11:30	Coffee break
11:30-12:30	School Lecture E3: Hands-on session: object detection and measurement (R. Lupton)
12:30-13:30	School Lecture E4: Hands-on session: object detection and measurement (R. Lupton)