

Scientific Organizing Committee

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## **Thursday 29th June**

- 9:00 10:30 Combining the Data
- Welcome and logistics P. Škoda
- The Virtual Observatory Enabling interoperability in Astronomy. (I) M. Allen
- The Virtual Observatory: A new framework for new science. (I) E. Solano
- Transient Sky in the Big Data Era. (I) Ł. Wyrzykowski
- VIALACTEA: 3D visualization-driven science analysis of large Galactic surveys from the infrared to the radio. S. Molinari
- Mining for lensed quasars in wide-field surveys, and modelling challenges. A. Agnello
- 14:00 15:30 Classical Machine Learning
- Statistical and machine learning methods to analyse the one billion time series of Gaia. (I) LEyer
- Automatic classification of sources in large astronomical catalogues. (I) A. Pollo
- Uncertain Photometric Redshifts. (I) K. Polsterer
- Machine learning technique for morphological classification of galaxies from SDSS. D. Dobrycheva
- Machine learning approach for the search of high-confidence blazar candidates and their multiwavelength counterparts. S. Einecke
- Enhanced SOM distributed processing for the classification of large spectroscopic data in the Gaia mission. M. A. Alvarez
- 16:00 17:30 Unsupervised and Deep Learning
- A distributed and enhanced implementation of unsupervised ANNs applied to spectrophotometry clustering in the ESA Gaia mission. **D. Garabato**
- An all-sky support vector machine selection of WISE YSO candidates. G. Marton
- Deep leaning for galaxy surface brightness profile fitting. **D. Tuccillo**
- Classifying radio galaxies with deep learning. V. Lukic
- Transfer of knowledge in convolutional neural networks for morphological classification of galaxies. H. D. Sanches (presented by D. Tuccillo)
  Flash Poster Talks

J. Knapen

## Friday 30th June

Friday sessions are organized in collaboration and with support of COST Action TD1403 BIG SKY EARTH

- 9:00 10:30 Astronomical Big Data Challenges
- LSST data products. (I) **D. Jevremovic**
- Big Data in Space- Big data in our Computers. (I) E. A. Valentijn
- Large Scale Data Management of Astronomical Surveys with AstroSpark. (I) K. Zeitouni
- Challenges of Big Data processing and machine learning in meteor science. (I) **D. Vinkovic**
- Fully non-linear statistical analysis of Large scale structure data for wide and deep surveys. G. Lavaux
- 14:00 15:30 Knowledge Discovery in Astronomical Big Data Sets • The art of getting science from astronomical data deluge. (I) G. Longo • Space and cyberspace: hidden patterns in astrophysical datasets. (I) A. Solarz • The Big Picture from the Bottom Up. (I) A. Mahabal • Domain adaptation and active learning for SNe photometric classification. (I) E. Ishida • Exploring large spectroscopic surveys using t-SNE reduction of spectral information. **G.** Traven **16:00 – 17:30** Software Tools for Astronomical Machine Learning • A data-driven probabilistic approach for emission-line galaxy classification. (I) **R. De Souza** • SUNDIAL: combining astronomy and computer science to understand the formation and evolution of galaxies. (I) • Photo-Z redshift reconstruction using a constructive multilayer perceptron. E. Mephu Nguifo • Deep Learning in Large Astronomical Spectra Archives. **O. Podsztavek** • Light Curves Classifier - Package for obtaining and classifying light curves. M. Vo • Search for UV Ceti type stars in astronomical surveys using machine learning methods with Python. J. Okleštěk Conclusions and Thanks P. Škoda