CASTLE 2024

Tuesday, 17 September 2024 - Friday, 20 September 2024 Castello di Tagliolo Monferrato

Book of Abstracts

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Welcome & opening remarks

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State of the art of optical/near-infrared cosmological surveys

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Review talk(s)

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Cross-Correlation between CIB and Galaxy Clustering

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Future measurements of S8 parameter with tomographic cross-correlations between LSST and CMB experiments

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State of the art of radio cosmological surveys

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Unveiling the HI auto-power spectrum with MeerKAT

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State of the art of CMB surveys and complementary observables

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Review talk

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Neutral Hydrogen stacking from MeerKLASS: challenges, results and prospects for SKA-Mid

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Cross-correlating the Evolutionary Map of the Universe (EMU) Pilot Survey with CMB Lensing: Constraints on Cosmology and Galaxy Bias

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Fire talks

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Detecting Relativistic Doppler via Multi-tracing a Single Galaxy Population

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Cosmology with HI Intensity Mapping on Small Scales

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Squeezing information from radio surveys to probe the primordial Universe

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Model-Independent Measurement of the Matter-Radiation Equality Scale from DESI and Tactics for Upcoming Surveys

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Testing gravity through the distortion of time

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Running primordial perturbations: prospects from future largescale surveys

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Self-calibration of observational systematic effects

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On cosmological clustering of Graviational Wave events

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Assembly bias in the local PNG halo bias and its implication for fNL constraints

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Importance of Relativistic Contributions to the Galaxy Bispectrum

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Machine learning for cosmology: from consistency tests to simulation based inference

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Forecasting the sensitivity of pulsar timing arrays to scalar induced gravitational waves

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Damping wings in the Lyman-alpha forest: a model-independent measurement of the neutral fraction at 5.4<z<6.1

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The infall region as a complementary probe to cluster counts

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Machine Learning Identification of Strongly Lensed Gravitational Waves Events

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Wrap-up discussion