

## Mini-Workshop: Theoretical implications on the first results of the Desi experiment

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### Does dark energy really revive using DESI 2024 data

*Friday, 24 May 2024 14:30 (1h 30m)*

The impact of the Dark Energy Spectroscopic Instrument (DESI) 2024 data on dark energy scenarios is critically revised. Through several cosmographic analyses and assuming three typologies of dark energy models, i.e. thermodynamic, Taylor expansions, and parameterizations, Monte Carlo Markov chain analyses are computed, showing significant departures from the standard  $\Lambda$ CDM model. Afterwards, more refined analyses, in which a controversial data point placed at  $z=0.51$  is removed, definitely align with the concordance standard model in analogy to previous findings. This robustly indicates possible evidence for systematic issues in the DESI catalogue. Thus, the corresponding outcome is finally compared and contrasted with recent publications toward the use of DESI 2024 data. Expectations for new data release are also debated.

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