
‘Deep’ vs. ‘Shallow’ Learning in Cosmological Surveys

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Abstract

We shall discuss the pros and cons of ‘Deep Learning’ compared with traditional Machine Learning and non-ML approaches, as applied to cosmological surveys. We focus on the examples of object classification, photometric redshifts, mass maps and galaxy masses. We also comment on the early days of ML in Astronomy in the 1990s and on the training of the next generation of astronomers as data scientists.

Slides: in PDF

Videos: <https://youtu.be/mg-f1j0jxJM>

Keywords: Deep Learning, object classification, photometric redshift, mass mapping

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