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STRUCTURES JOUR FIXE

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“Learning the Universe with intensity mapping and computer vision“

January 27, 2023 1:30 PM

HYBRID: Great lecture hall in Philosophenweg 12 and Zoom. Meeting ID: 935 6549 3662, Code: 928036
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ABSTRACT

Intensity Mapping of line fluctuations is a relatively new probe in astronomy, where tomographic large-scale maps provide us with information on a broad range of scales and times. Able to target the Universe up to when the first galaxies formed, these mappings tell about structure growth and underlying fundamental physics as well as astrophysical processes.

At the same time, deep learning and computer vision models are ideal candidates for optimal treatment of such large tomographic mappings. I will show what we can gain from intensity mapping and especially from bringing intensity mapping and modern machine learning together.

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