Inference from line intensity maps

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Abstract

The final data product of a line intensity experiment is a 3D intensity map. How do we extract the interesting information from this map about astrophysics and cosmology in a statistically rigorous way? How do we deal with the model dependence of our inference method? I will discuss the promises and limitations of using mock halo catalogue simulations to model the line intensity signal, and how we can use such simulations for inference to astrophysics and cosmology.

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