Advances on the Modelling of CO and CII lines in the context of Intensity Mapping surveys?

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Abstract

In the recent future, several Intensity Mapping surveys are expected to map the integrated line intensity in several galaxy lines. The optimisation of these instruments/surveys and the use of IM data to constrain global astrophysical quantities and cosmology parameters can significantly benefit from a more realistic modelling of the target signals and its foregrounds.
I will discuss recent advances in the use of zoom in simulations and of galaxy formation simulations to model the IM signal from CO and CII lines. Moreover, I will compare predictions from simulations and galaxy surveys in the context of CO and CII IM experiments.

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