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## A Novel Count-In-Cells Model for Galaxies

The count-in-cells (CIC) is a one point spatial statistic that is used to describe the spatial distribution of galaxies in the Universe. Besides the computational simplicity, it can be modelled theoretically to allow estimation of the parameters describing the large-scale structure of the Universe, such as the  $\sigma_8$  and bias. In this work, we measure the galaxy CIC distribution at high redshift. The measured CIC is also modelled in the framework of the halo occupation distribution, which connects the number of galaxies in a dark-matter halo to its mass. This also requires a description of the underlying matter density distribution, such as the lognormal or generalized extreme value distribution.

### References

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