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# Galaxy mergers through cosmic time

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## Abstract

I will discuss the merger history of galaxies – those in galaxy pairs and those that have merged recently, up to the epoch of reionization. I will present results on this from ground-based imaging and using all the Hubble CANDELS fields, showing that the pair fraction and merger rates increase rapidly at higher redshifts. The role of mergers in galaxy formation and reionization can be inferred from these observations, including a comparison to the role of star formation. I will also discuss the structures of these galaxies and how these relate to their formation, including the use of Deep Learning on Hubble imaging.

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