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The Quest for Cosmic Dawn: latest Results from J. Webb Space Telescope

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One of the most exciting challenges of modern extragalactic astronomy is to understand how the first galaxies emerged from a dark Universe and how their physical properties evolved with time. Huge advances have been made over the last decade thanks to the arrival of new telescopes and instruments (e.g. ALMA, MOSFIRE, MUSE, JWST) and new deep and wide surveys (e.g. Frontier Fields, UltraVISTA, CANDELS). In 10 years, the observational frontiers of the Universe have been pushed from $z \sim 8$ (2012) to $z \sim 17$ (2022), the number of spectroscopically confirmed $z > 6$ galaxies jump from a dozen (2012) to several hundreds (2022), including a dozen at $z > 9$! By combining all the data obtained by several instruments over a large range of wavelength, it is now possible to determine for individual high- z galaxy some key physical properties such as their age, escape fraction, size, radiation field or metallicity. By studying the whole population of very high-redshift galaxies, we can also constrain when the first generation of galaxies formed in the early Universe (aka Cosmic Dawn) and their contribution to the Epoch of Reionisation. In this talk, I will describe some of the latest results on the physical properties of the first generation of galaxies

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