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Galaxy formation at cosmic dawn from space observations

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Polo Ferrari 1 - Room A208

Abstract:
Observations with space telescopes, as well as theoretical and numerical modeling, transformed our view of galaxy formation at cosmic dawn during the past decade. In particular, the Hubble Space Telescope provided the first clues of how stars and galaxies form and evolve during the first billion years after the Big Bang, and of how early forming objects differ from those in our local Universe. In this talk, I will briefly present the current status of the field and discuss expectations for the next leap forward with the upcoming James Webb Space Telescope, that will study the early built-up of light, mass and chemical elements. Finally, I will conclude highlighting prospects for disruptive research innovation in the field thanks to miniaturization of cryogenic infrared cameras for CubeSats, introducing the SkyHopper mission concept.