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## **Fresh results (and surprises) from the James Webb Space Telescope**

*Wednesday, 10 July 2024 11:30 (30 minutes)*

In less than two years since the release of the first data, the James Webb Space Telescope has revolutionised our knowledge and understanding of the Universe. Thanks to its unprecedented collecting area and IR sensitivity, JWST has allowed us to study the atmosphere of exo-planets, stellar populations in nearby galaxies and galaxies and AGNs up to  $z \sim 15$ . In my talk I will review the status of the field, describe some of the latest results, first touching a couple of high impact results on exoplanets and resolved nearby stellar populations, and then focusing in particular on those related to the evolution of galaxies and AGNs in the first Gyr after the Big Bang. For these, the emerging picture is extremely exciting, as it combines confirmations - with galaxies showing an evolution off their rest frame properties as we approach the Big Bang - and surprises, like the slower-than-expected evolution of galaxies beyond  $z \sim 10$  and the large fraction of AGNs that are being detected. I will conclude with the potential impact of these discoveries on the fundamental physics and cosmology.

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