

WST - the Wide-field Spectroscopic Telescope: surveying the Universe in the 2040's and beyond



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The galaxy matter cycle as seen by WST

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The evolution of galaxies is driven by feedback processes occurring on small scales, galaxy-scale dynamical processes, and the interplay between galaxies, their dark matter haloes, and the intergalactic medium. Understanding the flows of matter and energy across these different scales is key to improving our understanding of galaxy evolution. Large surveys of galaxies provide sufficient statistics to study the link between galaxies and their halos, and the large-scale structure. Addressing the interstellar medium (ISM) matter cycle and the physics of star formation, on the other hand, requires a statistical perspective at a resolution comparable with the size and separation length characteristic of star-forming regions. In this contribution I will discuss the contribution WST can make the study of the cycle of matter in nearby galaxies, within the wider context of the WST extragalactic science case.

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