

Exploring the LSB Universe in the Euclid Era : Advances and Challenges

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(Invited contribution)

I will address how the unique capabilities of the Euclid mission - mainly a large field of view combined with a great image quality - are exploited to study the low surface brightness structures and objects around galaxies in the nearby Universe. The Euclid surveys appear to be a game changer for many topics, including the census of faint dwarf galaxies and tidal debris, together with their globular cluster populations. However, this also presents challenges in terms of exploiting the large set of data provided by the mission. For example, there is a need to adapt existing tools and pipelines, or even develop new ones, many of which use ad hoc training and artificial intelligence. Other surveys, such as LSST, will soon benefit from these efforts.