

SKA and the Epoch of Reionization

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Observations in the 21-cm line can probe different phases of reionization: an initial one where the atomic medium is cold and is seen in absorption at the highest redshifts, and the later signal of 21-cm emission from a heated medium before it is ionized. The emission signal is the easier one to observe in upcoming years, and it can arise from low-density regions that are less ionized than high-density ones, but also from high-density clumps that are more abundant in high-density regions, associated with sites of galaxy formation that can be observed also as damped Lyman alpha absorbers. Cross-correlation studies with other sources and emission lines will be essential to understand the origin of the 21-cm signal when it is detected.

Summary

Presenter(s) : Prof. MIRANDA-ESCUDE, Jordi (ICREA & IEC, UB, Spain)

Clasificación de la sesión : Epoch of Reionization