21 cm signal from the Epoch of Reionization: from models to observations

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Résumé

The process of Reionization progresses through the growth of ionized bubbles around the primordial galaxies. In the low density IGM, patches of still-neutral hydrogen emit 21 cm radiations that should be observable with radiotelescope such as LOFAR or the SKA. What features of the signal can be detected with what kind of instrument can be evaluated using numerical simulations. I will review the predicted general properties of the signal and what can be expected from LOFAR and SKA observations. I will also present examples of specific features only observable with the SKA, and explain what they will teach us about the underlying astrophysical processes.

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