

## IDM 2018



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## The EDGES result: An update and future plans

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A deeper than expected absorption of the Cosmic Microwave Background (CMB) by the 21-cm line hydrogen line at redshift 17 with flattened bottom has been observed using the Experiment to Detect the Global EoR signature (EDGES) instruments located at the Murchison Radio-astronomy Observatory in Western Australia. I will briefly describe EDGES and its calibration and how the performance has been improved leading to detection of 21 cm absorption at 78 MHz. Absorption of the CMB is expected when the hydrogen spin temperature drops from the CMB temperature to the kinetic temperature as the result of Wouthuysen-Field coupling of the Lyman-Alpha radiation from the early stars.

I will give an update of EDGES results, the need for confirmation by other instruments, the future plans of EDGES, and list mechanisms which might explain the greater depth and flattened profile.

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