

Team of scientists measures atomic hydrogen gas that formed galaxies

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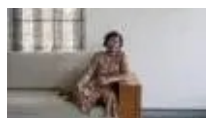
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Team of astronomers has discovered and measured hydrogen gas content that fused to form stars and later became galaxies, which are presently located about 4 billion light years away from Earth.

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Until now, limitations in the available radio telescopes prevented researchers from capturing the weak hydrogen emissions from the extremely far off celestial bodies.

Most atomic gas found within galaxies is present in the form of hydrogen and it emits spectral lines at a radio wavelength measuring 21.11 cm. These hydrogen emissions could be added to the field of view of the uGMRT, which offers wide frequency coverage," said Apurba Bera from IISER, Mohali.

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Vararam Chengalur, senior scientist at NCRA, said the measurements are crucial and require simultaneous measurements of multiple galaxies.

The uGMRT's large bandwidth allowed to cover over 400 galaxies simultaneously," Chengalur said.