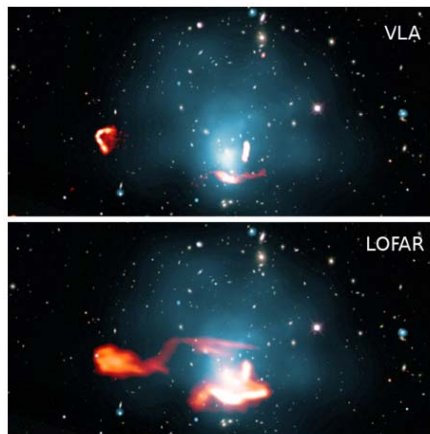


Physikalisches Kolloquium

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Why and how to observe at metre wavelength: the example of cosmic ray life cycle in galaxy clusters



Thanks to the Low Band Antenna (LBA), LOFAR is the only telescope capable of ultra-low frequency (< 100 MHz) observations of the sky. During this colloquium I will summarize the latest technical and scientific results involving LOFAR LBA observations. Firstly, I will show the results of the LOFAR LBA A-team (the brightest radio sources) survey, now completed. This includes high resolution and high dynamic range images of Cygnus A, Cassiopeia A, Taurus A, and Virgo A at 30-70 MHz. Furthermore, I will show the first wide-field direction-dependent calibrated LBA image, reaching a noise level of 1.2 mJy/beam at 20" resolution. Finally, I will show how these observations can be used to understand complex plasma dynamics in the intra-galaxy-cluster medium.

Montag, 06.05.2019, 16:15 Uhr

Ort: **Hörsaal 5**