



## **LOFAR-CM: A low frequency array station in the Carpathian Mountains**

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The development of a new generation of low frequency radio telescopes is one of the principal directions of modern radio astronomy. LOFAR (Low Frequency Array) under the lead of ASTRON (NL) is under way to perform this task on European level. Our goal is to develop a LOFAR outpost radio station as one element of the LOFAR system, to be deployed in the Carpathian Mountains on Ukrainian territory. The first step will be the installation of the low band antenna (LBA) array linked to the pan-European LOFAR system and also incorporated into the Ukrainian network of radio telescopes. Science tasks analysed within the frequency range of 30 – 80 MHz will be outlined in detail. The second step considers the deployment of a LOFAR Superstation (LSS) as an extension well into the decametric range, connected to the LOFAR back-end facilities. In this configuration the scientific objectives comprise the monitoring of Jupiter DAM radio emission leading to an improved modelling of the Jovian magnetic field, the observation of Saturn SEDs, potentially Uranus UEDs, as well as solar, heliospheric and exoplanetary radio emissions.