



Merac Prize T: HOMERIC: HaLO's Magnetic field as Evident from stRiated Interstellar Clouds (No 1648)

📅 02.07.2020 ⌚ 11:00 - 11:30 🗨 Plenary talk
🔗 Thursday Plenary

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From the propagation of cosmic rays and the removal of CMB foregrounds to the formation of molecular clouds and star formation, the Galactic magnetic field (GMF) plays a paramount role. Despite the importance of the GMF, unveiling its properties has proven to be, like the journey of Ulysses to Ithaca in Homer's epic poem, a real Odyssey. This is not because of lack of effort but rather because the magnetic field is hard to observe. The majority of the diagnostics we have been using to probe the GMF cannot provide 3-dimensional information about its strength or structure. HOMERIC (HaLO's Magnetic field as Evident from stRiated Interstellar Clouds) is an ambitious project that aims to perform a bona-fide tomographic measurement of the strength and orientation of the plane-of-sky component of the GMF. To this end, HOMERIC makes use of a novel method that utilizes the imprint of hydromagnetic waves on interstellar clouds to trace back the strength of the magnetic field.

