

Miguel Perez Torres:

Title: "Studying star-planet magnetic interaction of M-dwarf systems with radio observations"

Abstract: The magnetic interaction of exoplanets orbiting M-dwarf stars may result in radio emission, analogous to the Io footprint observed in Jupiter's aurora. This radio emission is produced via the electron-cyclotron maser instability. I will make the case in favor of sensitive radio observations at low frequencies (~100 MHz to few GHz) aimed at detecting such radio emission, as well as the direct radio detection of Jupiter-like systems at freqs below around 50 MHz. If successful, this technique would open the avenue for detecting exoplanets where other techniques have proven to be unsuccessful.