

Mutual occultation phenomena of the Galilean satellites observed at radio wavelengths

S. Pluchino(1), E. Salerno(1), G. Pupillo(1,2), F. Schillirò(1), A. Kraus(3), K.-H. Mack(1)

(1) INAF-Istituto di Radioastronomia, via Gobetti 101, I-40129 Bologna, Italy

(2) INAF-Osservatorio Astronomico di Torino, Strada Osservatorio 20, I-10025 Pino Torinese (TO), Italy

(3) Max-Planck-Institut für Radioastronomie, Auf dem Hügel 69, D-53121 Bonn, Germany

Abstract

We present preliminary results for our study of mutual phenomena of the Galilean satellites performed at radio wavelengths with the Medicina and Noto antennas of the Istituto di Radioastronomia – INAF, and with the Effelsberg 100-m radio telescope of the Max-Planck-Institute for Radioastronomy, Bonn. Measurements of the radio flux variation occurred during the mutual occultations of Io by Europa and Ganymede were carried out in the framework of the PHEMU09 campaign at K- and Q-band. Flux density variations observed at radio wavelengths are consistent with the typical optical patterns measured when partial occultations occur.