

Contribution ID: 519

Type: Poster

Microwave observations of coronal jets

Monday, 6 September 2021 16:09 (13 minutes)

We discuss the diagnostics of plasma jets in the solar corona from multiwavelength imaging observations in the microwave band. We present several events observed with RATAN-600, Siberian Radioheliograph, and Nobeyama Radioheliograph. Obtained data provide us with spatially resolved imaging information alongside microwave flux observations at several frequencies. To analyze the context information on the threedimensional structure of the coronal magnetic field, we reconstruct the magnetic field in the lower corona from the SDO/HMI magnetograms and compare it with the magnetic field at the base of the corona derived from the RATAN-600 data. In this work we demonstrate that microwave observations of the events associated with coronal jets can (1) give insights into jet dynamics and excitation mechanisms and (2) provide important information on physical conditions in the corona of an active region where a jet is initiated and developed. This work is supported by the Russian Foundation of Basic Research grant 18-29-21016.

Student poster?

Primary authors: ANFINOGENTOV, Sergey (Institute of Solar-Terrestrial Physics SB RAS); KALTMAN, Tatyana (Special Astrophysical Observatory, Russia, St.-Petersburg); Dr STUPISHIN, Alexey (5Saint Petersburg State University, Saint Petersburg, Russia); Prof. NAKARIAKOV, Valery (University of Warwick); LOUKITCHEVA, Maria ((1) MPS, Germany (2) SAO, Russia (3) SPbSU, Russia)

Presenter: ANFINOGENTOV, Sergey (Institute of Solar-Terrestrial Physics SB RAS)

Session Classification: Poster Session 2.3

Track Classification: Session 2 - The Solar Atmosphere: Heating, Dynamics and Coupling