

TRANSITION RADIATION
OF RELATIVISTIC ELECTRONS
FROM THE INTERPLANETARY SHOCK

K.S. Musatenko, I.O. Anisimov

Taras Shevchenko Kyiv National University,
Faculty of Radiophysics
(6, Academician Glushkov Ave., Kyiv 03127,
Ukraine; e-mail: ksm@univ.kiev.ua)

S u m m a r y

The model of the transition radiation from an electron drifting through the interplanetary shock region is suggested to explain CLUSTER and WIND multisatellite measurements. A wave equation for the longitudinal component of the vector-potential is obtained. Transition radiation patterns for the Fourier harmonics of the Poynting flux are presented. Properties of the radiation that appears in the considered system are discussed.