Radiation from Relativistic Electrons in Periodic Structures "RREPS-23" & Electron, Positron, Neutron and X-ray Scattering under External Influences "Meghri-23"



Contribution ID: 182

Type: Oral

Coherent Transition Radiation from Finite-Size Screen in the Prewave Zone

Tuesday 19 September 2023 15:00 (20 minutes)

In this report, we show experimental and theoretical investigation of coherent transition radiation from finitesize screen in the prewave zone. Experimental measurements were performed for sub-THz range at LINAC-200 facility (JINR). We compare the experimentally obtained results with numerical simulation and evaluate the longitudinal beam size.

Author: SHEVELEV, Mikhail

Co-authors: POTYLITSYN, Alexander; KUBANKIN, Alexandr (1) Belgorod State University, Belgorod, Russia 2) Lebedev Physical Institute of the Russian Academy of Sciences, Moscow, Russia); BALDIN, Anton (JINR); Dr VUKOLOV, Artem (TPU); KOROVKIN, Dmitry (Joint Institute for Nuclear Research); SHKITOV, Dmitry; KI-DANOVA, Ekaterina; NAUMENKO, Gennady (Tomsk Polytchnic University); Dr KISCHIN, Ivan (Belgorod National Research University); Ms TOKTAGANOVA, Marzhan (Tomsk Polytechnic University); KARATAEV, Pavel (Royal Holloway, University of London); Dr KOCHARYAN, Vahan (Institute of Applied Problems of Physics NAS RA, 25 Hr. Nersisyan, Yerevan, 0014, Armenia); KOBETS, Valery (JINR); BLEKO, Veronika (Joint Institute for Nuclear Research); BLEKO, Vitold (JINR); CHEREPENNIKOV, Yury (Tomsk Polytechnic University)

Presenter: SHEVELEV, Mikhail

Session Classification: e-/e+ beams interaction in solids

Track Classification: e^{-/e^+} beams interaction in solids: Transition Radiation, Cherenkov Radiation