

The Experimental Study of the Neutralised Electron Beam for Electron Cooling, J. BOSSER, R. LEY, R. MACCAFERI, G. MOLINARY, G. TRANQUILLE, CERN; Y. KOROTAEV, I. MESHKOV, V. POLYAKOV, A. SMIRNOV, E. SYRESIN, JINR -

This paper aims to present the experimental results, received on the LEAR electron cooler and on the JINR Test Bench, intended to the neutralisation of dense electron beams. The major difficulty of the neutralised beam formation consist of the beam neutralised state, which has a threshold dependence on the high beam current. Methods developed to control this instabilities have been implemented. They have permit us to came to stable neutralised regimes over a broad range of current and energies.