

Study of Beam Envelope Oscillations by Measuring the Beam Transfer Function with Quadrupolar Pick-Up and Kicker, M. CHANEL, CERN - A quadrupolar pick-up provides information on beam envelope oscillations. To enhance the signals a quadrupolar kicker has been used to excite these modes. In this way the incoherent Laslett tune shift can be directly measured. The tune shifts and spreads of a dense proton beam obtained at LEAR with electron cooling have been studied varying parameters like the number of particles and the cooling time constant. The effect of stop-bands on the beam distribution as well as on instabilities have been studied. The technique and the results of these measurements will be discussed.