

**Transverse Measurements with Kicker Excitation at COSY-Jülich, J. DIETRICH and I. MOHOS,**  
Forschungszentrum Jülich GmbH, Jülich, Germany -  
COSY-Jülich is a cooler synchrotron and storage ring with a proton momentum range from 270 to 3300 MeV/c. It has been conceived to deliver high precision beams for medium energy physics. A fast diagnostic kicker magnet is used to excite the beam particles to collective transverse oscillations which run with betatron frequencies. The kicker excitation is synchronized with respect to the COSY rf signal and can be adjusted in time by programmable delay, so a unique deflection of the total bunch can be performed (bunch - synchronous excitation). The studies of forced beam centroid oscillations yield important information about the lattice. The procedure is also used for phase space boundary studies at the electrostatic septum in the case of resonant extraction. In this contribution the experimental procedure is described and measurements of lattice parameters and phase space boundary are presented.