

**The Simulation Study of the Single-Bunch Instabilities in the SPring-8 Storage Ring,**  
T. NAKAMURA, SPring-8 - The longitudinal and transverse single-bunch instabilities were studied with simulations. The usual collider rings have many rf cavities. They are main sources of the impedance and are localised in several points in a ring. The SPring-8 storage ring is the 8 GeV light source and has the less number of cavities. The source of the impedance is small discontinuities of a vacuum chamber and they are distributed around the ring. The single-bunch instability simulation code was developed for these distributed broad-band impedance. The explanation of the code and the results for the SPring-8 storage ring is shown in this paper.