

**Simulated Beam Ion Interaction in the Electron Storage Ring, J.C. LEE, SRRC** - The residual gas within the vacuum chamber can be ionized and has the possibility to be trapped by the beam. As the ions are trapped, the electron beam and the trapped ions will perform two beam oscillation. Electron beam behaviour is then perturbed by the ions. In this paper we will look into the problem from the simulation point of view. The ion motion under the influence of the bunched beam potential is described. The effect of ion on the beam is also estimated.