

RF Issues for High Intensity Factories, K. AKAI,
KEK - This paper presents a brief report on the RF issues for high luminosity electron-positron colliders, referred to as "factories", such as phi, tau-charm, and B factories. The strategy to achieve their luminosity goals is common to many factory designs: double rings, high beam current with many bunches, short bunch length and small fl / at the interaction point. In order to realize these conditions, heavy demands are placed on the RF system. The main challenges for the RF systems include (1) the development of heavily HOM damped cavities, (2) cure for the accelerating mode-driven coupled-bunch instability (in B factories), (3) high power handling capability, (4) accurate phase control and cure for the bunch gap transient, and (5) carefully designed feed back loops. Design considerations and developments in this area are discussed.