

**A New Cod Correction Method For Orbit Feedback,** Y. KAMIYA, N. NAKAMURA,  
M. SATOH, The University of Tokyo - Photon beam positions or closed orbits in synchrotron radiation sources are usually stabilized by global and/or local feedbacks. The global feedback efficiently corrects COD around the whole ring with the harmonic method or the least square method including eigen-vector method, while the local orbit feedback tightly fixes the beam position at a photon source point by the local orbit bump method. However, the two feedbacks may interfere with each other and deteriorate the orbit stability when they are operated at the same time. We propose a new correction method which has both functions of global and local COD corrections. The advantage of this method is that only one feedback loop is needed. In this paper, a new COD correction method for orbit feedback is presented and compared with other methods.