

**Review of Feedback Systems, K. BALEWSKI,**  
DESY - The current strategy to achieve high luminosity for high energy physics experiments as well as high brilliance in synchrotron radiation sources is to store huge currents distributed in many bunches in circular machines. This approach has the disadvantage that the performance of these machines is most likely to be limited by coupled bunch instabilities. To circumvent this problem strong feedback systems are necessary to damp collective instabilities. The principle requirements for these damper systems will be reviewed and the performance of existing systems will be presented. Although single bunch instabilities are not considered a problem for particle factories there is still a interest to fight single bunch instabilities, for example the transverse mode coupling instability. This may be of interest for synchrotron radiation sources operating with only a few intense bunches to allow time resolved measurements. Theoretical predictions to control this instability will be compared with observations.