

Recent Improvements in Vertical Orbit Feedback at the Daresbury SRS, S.L. SMITH, CLRC Daresbury

Lab. - A vertical orbit feedback system has been in routine operation at Daresbury since 1994 and plays an important role in providing stable beams for users. This system was based, until recently, on a local feedback scheme, which stabilised the vertical orbit at each line using a single photon monitor and a closed three magnet bump. This paper reports the improvements in stability achieved with a new global vertical feedback scheme, which uses the same magnets and monitors but is based on an SVD correction algorithm. The simulation and initial commissioning of the scheme was carried out using an EXCEL based program. This provided a flexible and fast development environment and allowed the speedy implementation of the new scheme for routine operations.