

Experimental Tests of the DAΦNE RF Feedback System, R. BONI, A. GALLO, F. MARCELLINI, INFN-LNF - The Φ-Factory DAΦNE is a high current, multibunch e^+e^- double ring collider in construction in Frascati. The operating current has to reach 5 Amps to get the ultimate luminosity, while the required gap voltage per ring is quite small (250 kV). For this reason the beam loading effect is really emphasised in the machine. A fast RF feedback system has been implemented to prevent the beam loading instability, and a prototype of the control circuit has been tested in a real environment, including the RF cavity, the high power klystron and the rest of the RF servo loops. A general description of the system and the experimental results, including the effects of the beam-cavity interaction on the whole RF control electronics, are reported in this paper.