

Characterisation of the Low Level System of the ELETTRA RF Plants, M. BOCCIAI, A. FABRIS, C. PASOTTI, M. RINALDI, M. SVANDRLIK, Sincrotrone Trieste - Each of the four RF plants of ELETTRA is equipped with four low level loops. The temperature loop stabilizes the reference temperature of the cavity with an accuracy better than 0.1°C , a mechanical tuning loop and an amplitude loop are installed for beam loading compensation, whilst a phase loop is used to maintain the phase stable. All these loops interact with each other and are coupled via the beam. Therefore an optimisation of their parameters under real operating conditions becomes necessary. During the last year, extensive measurements were performed to completely characterise the transfer functions of the loops and different configurations have been tested under various operating conditions.