

HOM-based Cavity Alignment Measurement at FLASH

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TESLA-type accelerating cavities installed at FLASH and the European XFEL are equipped with two higher order mode (HOM) couplers damping these modes in order to prevent beam breakup instabilities. The dipole mode signals from the HOM couplers can be used for beam based cavity alignment measurements since their excitation is proportional to the offset and kick of the transferring beam with respect to the cavity axis. The measurement procedure as well as the results for the accelerating modules installed at FLASH will be presented.

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