

Interpretation of BTF-based tune measurements close to a 3rd-order resonance at HIT

The beam response to an external periodic excitation delivers relevant information about the ion-beam optics, tune distribution and stability of a circulating beam in a storage ring. In this contribution the horizontal beam response under conditions typical for slow extraction is presented for a coasting beam. The resulting spectrum exhibits a splitting behaviour. The single particle dynamics is discussed and an interpretation based on simulation results is presented.

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