

# Momentum Compaction Measurement using Synchrotron Radiation

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The momentum compaction factor of a storage ring can be obtained by measuring how the beam energy changes with the RF frequency. Direct measurement of the beam energy can be difficult, long or even not possible in some machines such as ESRF. Since the energy spectrum of the synchrotron radiation depends on the beam energy, it is indeed possible to relate the variation of the beam energy with a variation of the produced synchrotron radiation flux. In this contribution, we will present how we obtain a measurement of the momentum compaction using this dependence.

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