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Fixed-target experiments at LHC with bent crystals. MDM measurement of short lived particles.

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Utilisation of bent crystals at LHC opens up a unique possibility of direct measurement of electromagnetic dipole moments (MDM and EDM) of short lived particles. We present a detailed sensitivity study showing the feasibility of such experiments at the LHC in the coming years. The latest experiments on deflecting efficiency of crystals at SPS and LHC suggest that the MDM of charmed baryon could be measured at LHC within two years, and about ten years of operation is needed to reach the current (from indirect measurement) precision on MDM of tau lepton.

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