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Goals and Plans for Initial Crystal Collimation Tests at the LHC

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Two bent crystals have been installed in the Large Hadron Collider (LHC) for crystal collimation studies of horizontal and vertical halos, with proton and ion beams at energies close to $7 \times Z$ TeV. In addition to demonstrating the feasibility of crystal channeling at these unprecedented beam energies, these tests are targeted at addressing specific beam collimation issues at the LHC and its High Luminosity (HL) upgrade, like beam cleaning requirements in the $1e-5$ range and continuous collimation in dynamics machine conditions like ramp and squeeze. In this paper, the LHC crystal collimation layouts are reviewed and the plans for the first beam tests are presented. The timeline for possible machine studies in 2015 is reviewed.

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