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Tune Space Measurements

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Experimenter(s) L.G. Ratner and W. van Asselt

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Subject Tune Space Measurements

The tune space available at energies for polarized proton intrinsic resonances was measured while using only the high field vertical quads to shift tune. This was done because the future replacement of ring quads will allow only the use of the vertical quads. The results in the following graph show that the vertical tunes can be moved to $\nu_y \geq 8.9$ and therefore one can have a fast tune shift $\Delta\nu_y = 0.3$. Because of the hardware setup, we cannot now parasitically move the tune in the other direction, but we do not anticipate any difficulty in reaching $\nu_y = 8.6$. This study was done at a beam intensity of 1.3 x 10^{13}.