Search for a Charged Higgs Boson with Decay to a Top Quark and a Bottom Quark at D0

CHRISTOPHER POTTER, McGill University, D0 COLLABORATION — The large mass of the top quark, close to the electroweak symmetry-breaking scale, makes it a good candidate for probing physics beyond the Standard Model. Single top quarks may be produced in the decay of a charged Higgs boson predicted by several extensions of the Standard Model. We present limits on the production cross section of such a particle using a 0.9 fb$^{-1}$ dataset.