Measurement of $\Upsilon(1S)$ polarization using CMS

MATTHEW RUDOLPH, MIT, CMS COLLABORATION — I present plans to measure the polarization of promptly produced $\Upsilon(1S)$ mesons in proton-proton collisions at $\sqrt{s} = 7$ TeV using the decay to two muons at the CMS detector. The method is outlined and preliminary results using approximately $40\text{ pb}^{-1}$ are presented. The full angular distribution of the muons is measured as a function of the $\Upsilon$ $p_T$ and rapidity, and the analysis is conducted using two coordinate frames.