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STAR Extracted Upsilon(1S+2S+3S) Yield from the RHIC 2009 p+p $\sqrt{s}$ = 200 GeV run ANDREW PETERSON, UC Davis, STAR COLLABORATION — Upsilon meson production is of particular interest in heavy ion physics because the suppression of excited Upsilon states (2S and 3S) compared to the ground state (1S) is theorized to be one of the best probes of the hot, dense matter produced in relativistic heavy ion collisions. It is expected to be a good test of deconfinement and of the medium temperature. In addition, bottomonia is expected to be less affected than charmonia by recombination and hadronic co-mover absorption. Enhancement or suppression is quantified by the nuclear modification factor R_{AA}. The Solenoidal Tracker at RHIC (STAR) detector is used to identify Upsilon $\rightarrow e^-e^+$. e^-e^+ from the Drell-Yan (DY) process and b-bbar continuum can also reconstruct to a similar invariant mass (IM) as the Upsilon. The DY and b-bbar backgrounds are determined by fitting a functional form including a parameterization of the trigger activation to the like-sign electron pair IM spectrum. The fit is combined with the Upsilon(1S+2S+3S) line shape to determine the total Upsilon(1S+2S+3S) yield from the e^-e^+ IM spectrum. We present preliminary results on the total extracted Upsilon(1S+2S+3S) yield produced in STAR during the Relativistic Heavy Ion Collider (RHIC) 2009 p+p $\sqrt{s}$ = 200 GeV run.

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