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Study of $\psi(3770) \to non - D\bar{D}$ at BESIII DERRICK TOTH, Univ of Minn - Minneapolis, BESIII COLLABORATION — We describe a measurement of the branching ratio for $\psi(3770) \to non - D\bar{D}$ final states using 2.92 fb^{-1} of e^+e^- annihilation data collected with the BESIII detector at the BEPCII collider at $E_{CM} = 3.773$ GeV. The naive expectation is that $\psi(3770)$ decays are dominated by $D\bar{D}$ final states. Published data paint an inconsistent picture, however, with reported non-$D\bar{D}$ rates ranging from consistent with zero to $\sim 15\%$. We determine the yield for $\psi(3770) \to non - D\bar{D}$ in our sample by measuring the total number of hadronic events and subtracting the contributions from all expected processes. The $D\bar{D}$ component is directly measured in data with a double-D-tag counting technique. Continuum $q\bar{q}$ and most QED are determined with data collected at five energy points below $D\bar{D}$ threshold. Other processes, including initial-state radiation to J/ψ and $\psi(3686)$, $\tau^+\tau^-$ and two-photon production, are estimated by Monte Carlo. Preliminary results for event yields and cross sections will be presented and interpreted.

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