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Triangle Singularity in e^+e^- Annihilation into $D^{*0}\bar{D}^0 + \gamma$ with the Charm Mesons near the $X(3872)$ Resonance[1] ERIC BRAATEN, LIPING HE, KEVIN INGLES, Ohio State Univ - Columbus, JUN JIANG, Shandong University — The cross section for e^+e^- annihilation into $D^{*0}\bar{D}^0 + \gamma$ at center-of-mass energies near the $D^{*0}\bar{D}^{*0}$ threshold has a threshold enhancement in $D^{*0}\bar{D}^0$ from the $X(3872)$ resonance. The Dalitz plot has a $\bar{D}^{*0}$ resonance band in the $\bar{D}^0\gamma$ invariant mass and a narrow band in the $D^{*0}\bar{D}^0$ invariant mass from a charm-meson triangle singularity. In the projection of the Dalitz plot onto the $D^{*0}\bar{D}^0$ invariant mass, the peak from the triangle singularity is suppressed by the Schmid cancellation. The measurement of the cross section for $D^{*0}\bar{D}^0 + \gamma$ would allow an accurate prediction of the height of the peak from the triangle singularity in the cross section for $X(3872) + \gamma$.

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