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Search for supersymmetric top and bottom squarks in the $\tilde{t} \to c\chi$ and $\tilde{b} \to b\chi$ channels with the DØ detector MANSOORA SHAMIM, Kansas State University, DZERO COLLABORATION — Supergravity inspired models suggest the existence of light supersymmetric partners of the third generation quarks: a light stop for small or moderate values of $\tan\beta$, a light sbottom for large $\tan\beta$. If the stop or sbottom is the next-to-lightest supersymmetric particle, the expected decay channels are $\tilde{t} \to c\chi$ and $\tilde{b} \to b\chi$, respectively. Pair production of stops or sbottoms in $p\bar{p}$ collisions will therefore lead to the signature of two acoplanar heavy flavor jets and missing transverse energy. The search for such final states in data collected at a center-of-mass energy of 1.96 TeV by the DØ detector at the Fermilab Tevatron collider will be presented, with particular emphasis on the heavy-flavor tagging techniques used.

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