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**Rare B Decays at D0** ANDREAS WENGER, University of Zurich, D0 COLLABORATION — Studies of the B meson system are motivated both by precise consistency tests of the standard model (SM) and for searching for indirect effects of new physics. In the SM flavour changing neutral currents (FCNC) are absent at tree level but appear in higher order diagrams through box and penguin diagrams. B meson decays involving such FCNC have branching ratios of order  $10^{-7}$  to  $10^{-6}$  in the SM, but are expected to be enhanced in many models beyond the SM. Investigations into some rare decays like  $B \to X_s \mu \mu$  will be presented, using data taken by the D0 experiment at Fermilab.

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