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## Direct probes of flavor-changing neutral currents in $e^+e^-$ collisions ( $15' + 5'$ )

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We propose a novel method to study flavor-changing neutral currents in the  $e^+e^- \rightarrow D^{*0}$  and  $e^+e^- \rightarrow B_s^*$  transitions, tuning the energy of  $e^+e^-$  collisions to the mass of the narrow vector resonance  $D^{*0}$  or  $B_s^*$ . We present a thorough study of both short-distance and long-distance contributions to  $e^+e^- \rightarrow D^{*0}$  in the Standard Model and investigate possible contributions of new physics in the charm sector. This process, albeit very rare, has clear advantages with respect to the  $D^0 \rightarrow e^+e^-$  decay: the helicity suppression is absent, and a richer set of effective operators can be probed. Implications of the same proposal for  $B_s^*$  are also discussed.

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