

Probing strongly interacting W 's at the ILC with polarized beams

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We study the possibility of fingerprinting a strongly interacting W boson sector, consistent with present day LHC searches at the ILC with longitudinal as well as transversely polarized electron and positron beams. We account for the final state interaction using a suitable Omnès formalism in terms of a plausible resonance description, and carry out thorough analyses of cross sections, asymmetries and angular distributions of the W 's. We also consider the effect of the strong final state interaction on a correlation that depends on $(\phi_- - \phi_+)$, where the ϕ_{\mp} are the azimuthal angles of decay leptons, and find that it is a useful discriminant.

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