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**Using Drell-Yan to Probe the Underlying Event in Run 2 at CDF**

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— We study the event topology in Drell-Yan lepton-pair production in proton-antiproton collisions at 1.96 TeV in Run 2 at CDF. We use the direction of the lepton-pair at a event by event basis to define three regions of  $\eta-\phi$  space; “toward”, “away”, and “transverse.” The “transverse” region is very sensitive to the “underlying event” and is separated into a MAX and MIN “transverse” region, which helps separate the “hard component” (initial and final-state radiation) from the “beam-beam remnant” and multiple parton interaction components of the scattering. The data are corrected to the particle level and are then compared with the QCD Monte Carlo models. The properties of the “underlying event” are examined as a function of the lepton-pair invariant mass and transverse momentum. The data are also compared with a previous analysis on the behavior of the “underlying event” in high transverse momentum jet production. The goal is to improve our understanding and modeling of the high energy collider events to allow for more precise predictions at the LHC.

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