The effect of electromagnetic backgrounds on an IP feedback system at ILC and CLIC

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Experiment T-488 at SLAC, End Station A recorded distorted BPM voltage signals due to the impingement of background e+, e- and gamma particles on the BPM striplines. Simulations agreed with the experiment to show that the impact of background pairs at the level expected at the ILC would be negligible. However for CLIC default parameters (centre of mass E=3 TeV, $s_x/s_y=53/1nm$, $e_x/e_y=660/20$ nm rad) an error due to secondary emission from the IP BPM strips would lead to a position error of 5%

Talk, Poster, or Talk & Poster

Talk

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