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## Leptonic topologies for the study of neutral current single $\pi^0$ events in the T2K near detector

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This presentation outlines additional efforts to use the near detector to measure the cross section for single  $\pi^0$  production. Such processes are relatively rare in the tracker region and this work will consider additional, less restrictive topologies to increase statistics. Specifically, this work will focus on single pion neutral current interactions where one or both of the decay gammas produce only a single electron/positron of reconstructable energy, in addition to pair producing gammas. From these criteria, a set of six specific sub-topologies, which will be discussed in this presentation, are being developed, which will exploit the near detector's tracker region to the fullest.

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