Plans for background studies in coordination with Physics WGs

- So far – using the updated SR rates at 18x275 GeV – we have studied tracking performance when DIS events with $Q^2 > 1GeV^2$ are overlayed with beam-induced backgrounds. For these studies, we used 2us time windows and forced a single DIS event to be present in each time window.
- We plan to extend these studies with two additional configurations:
  1. Each time window has a single photoproduction collision event with the beam backgrounds overlayed.
  2. Each time window has only beam backgrounds. No actual e-p collisions are present in this sample.
- We will study the tracking performance for these additional configurations.
- In addition, we will work with the Physics WGs – starting with the Inclusive WG – to extend the studies beyond track reconstruction performance.
- With the Inclusive WG, we will focus the attention on the electron finder and kinematic reconstruction performance.
  - For example, the Inclusive WG will work to update the electron finder to have more flexibility to include things like minimum number of measurements (e.g., 4) for the reconstructed track. This updated electron finder can then be tested on the background samples mentioned above.