- two rapidity ranges

  $|y| < 0.05$

  $|y| < 0.1$

- **rVertex Tight**

= rVertex < 8 cm

- **rVertex Loose**

= rVertex < 16 cm

Additional cuts:

Total tracks = 2
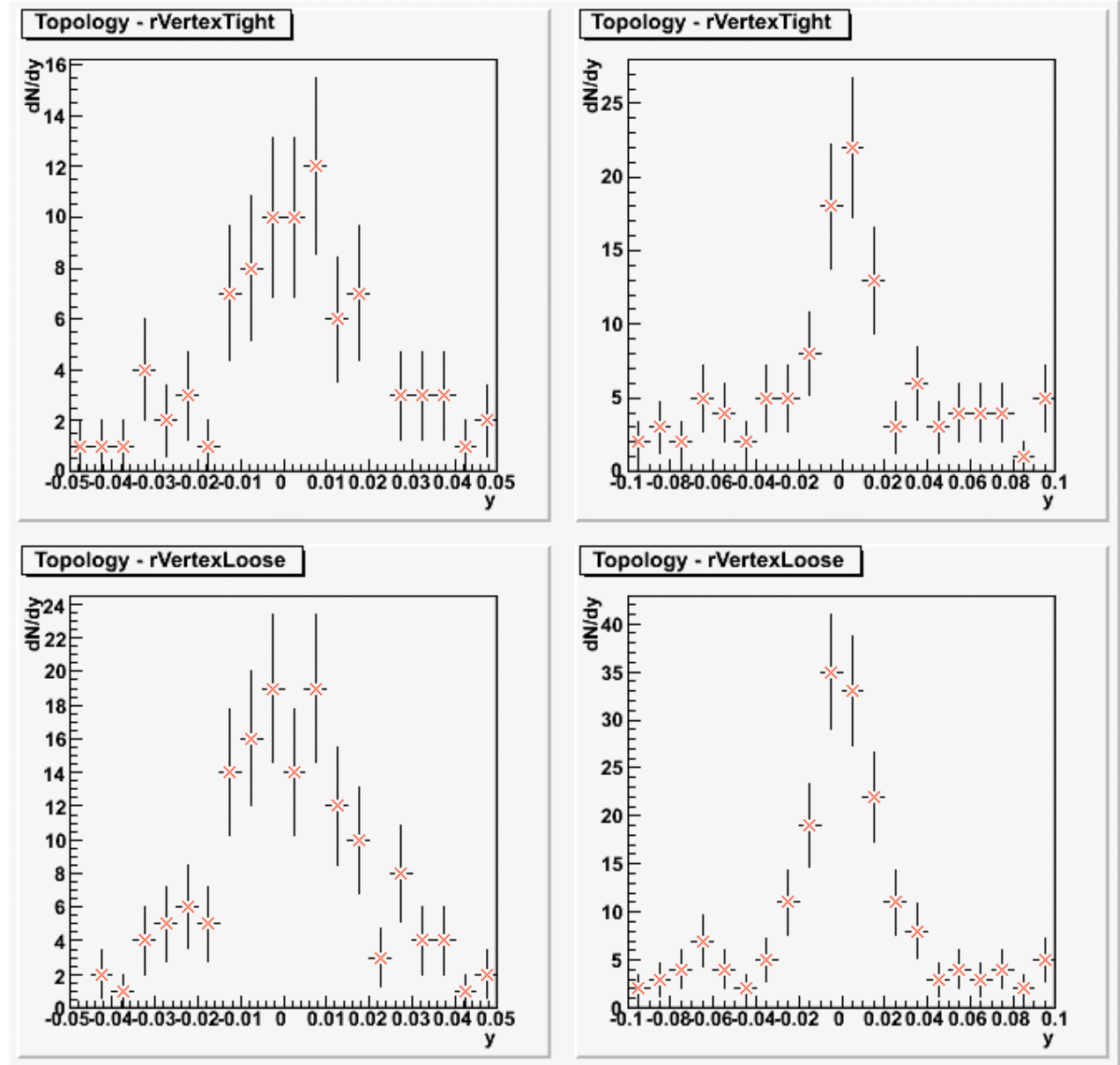
Total charge = 0

$0 < p_T < 0.02$ GeV

$|zVertex| < 50$ cm

0.55 GeV/c $< M_{inv} < 0.92$GeV/c

Topology rapidity study

- two rapidity ranges

    $|y| < 0.05$

    $|y| < 0.1$

- **rVertex Tight**

$= rVertex < 8$ cm

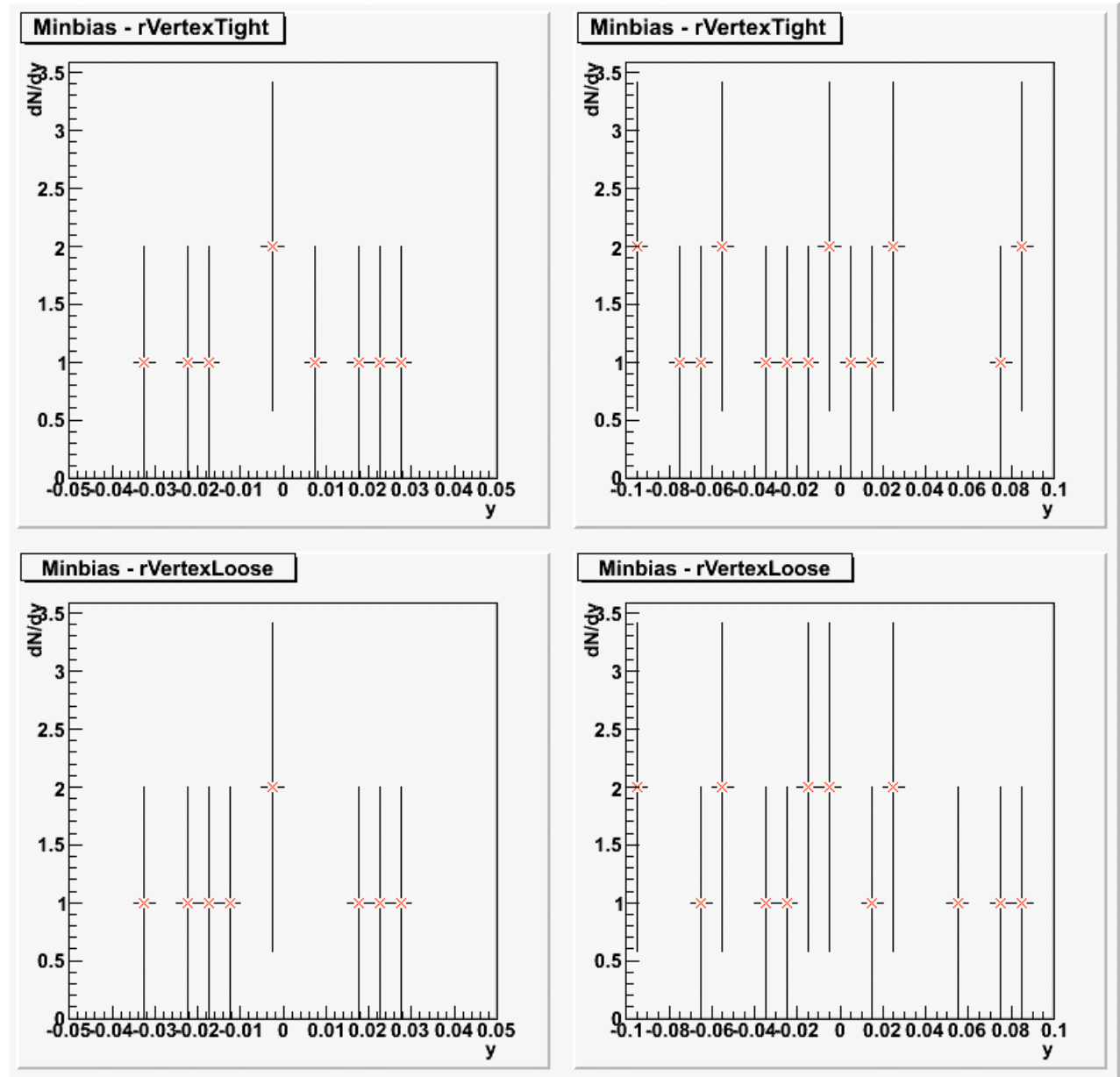- **rVertex Loose**

$= rVertex < 16$ cm

Additional cuts:

Total tracks = 2

Total charge = 0

$0 < p_T < 0.02$ GeV
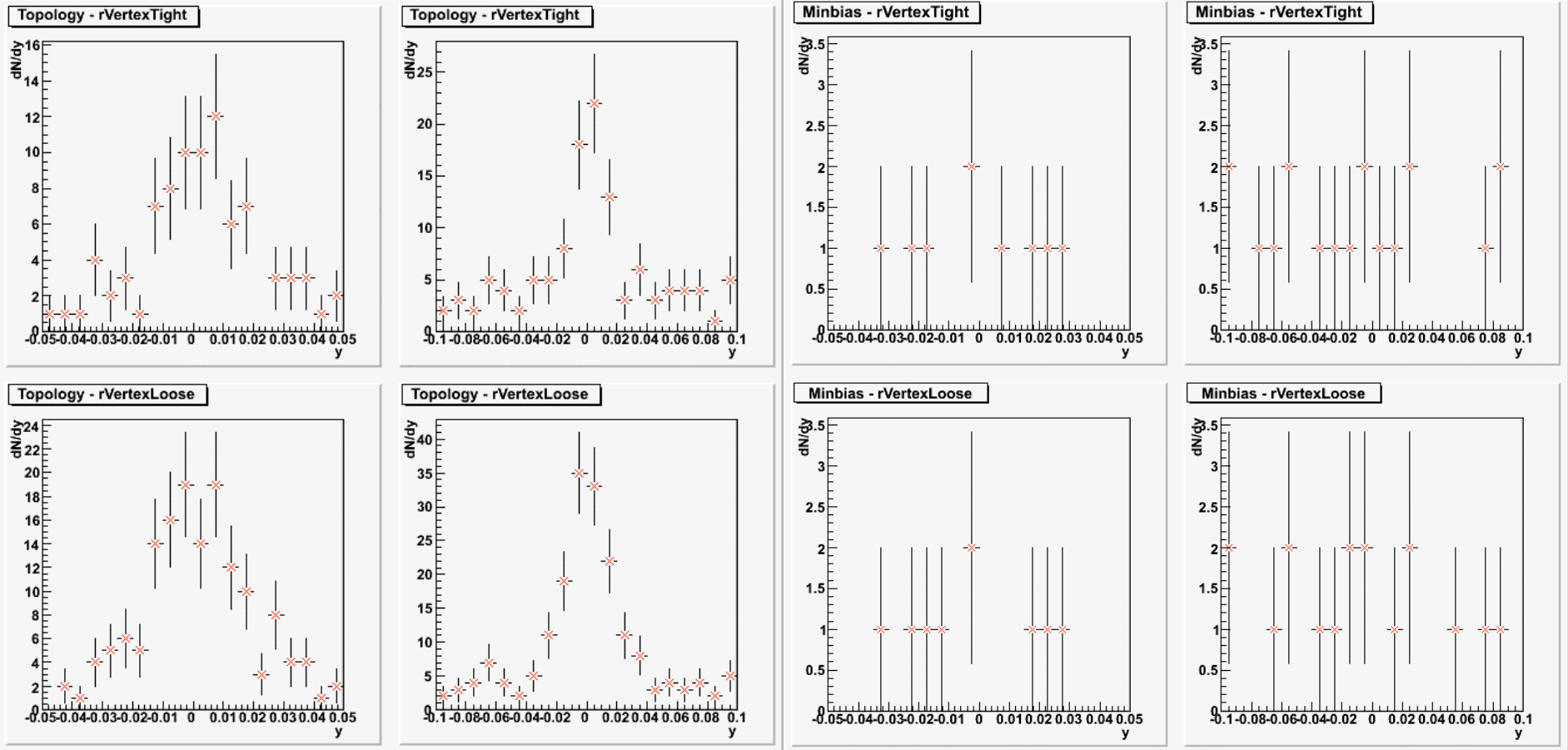
$|zVertex| < 50$ cm

0.55 GeV/c $< M_{inv} < 0.92$ GeV/c

Minbias rapidity study

Side by side comparison

- There is a clear cosmic ray peak in the topology data, while the minbias sample has much fewer candidates, nearly negligible

- As evidenced by the plots, the current cut on rapidity ($|y| < 0.1$) and a tight cut on rVertex ($r < 8$cm) should eliminate most of the cosmics from the topology set, the same rapidity cut is not needed for the minbias sample