

# $B \rightarrow \mu\nu$ with inclusive tagging

General

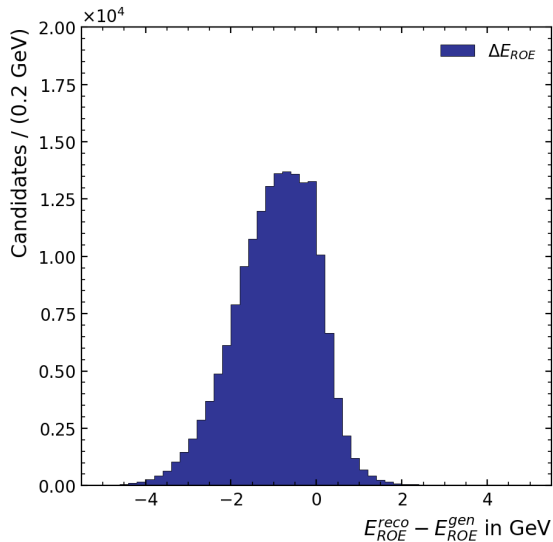
## Goal

- Boost  $\mu$  into  $B_{signal}$  rest frame
- Estimate  $B_{tag}$  (Rest of Event) precisely
- Get high precision boost vector

## Working on

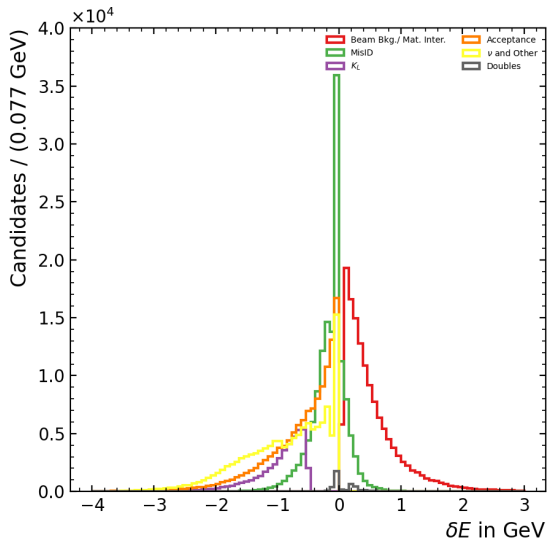
- Compare generated with reconstructed data
- Look at  $E_{ROE}^{reco} - E_{ROE}^{gen}$
- Which energy errors  $\delta E$  dominate resolution and how can we improve

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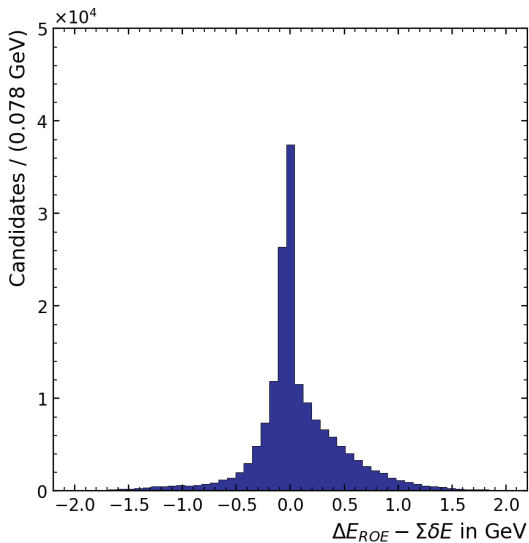


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Energy Errors



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## Next steps

- Improve categorization since there are still some things not working properly  
Example: Double matched photons

$PDG_{\text{reco}}$	...	211	22	22	-211	...
$PDG_{\text{gen}}$	...	211	22	22	-211	...
$Index_{\text{matched}}$	...	16	29	29	17	...
$E_{\text{reco}}$	...	0.44935	0.20033	0.27259	0.34404	...
$E_{\text{gen}}$	...	0.44513	0.49975	0.49975	0.34202	...

- What effect have the different energy errors on the resolution of  $p_{\mu}^B$