

# Summary of shift-SS performance

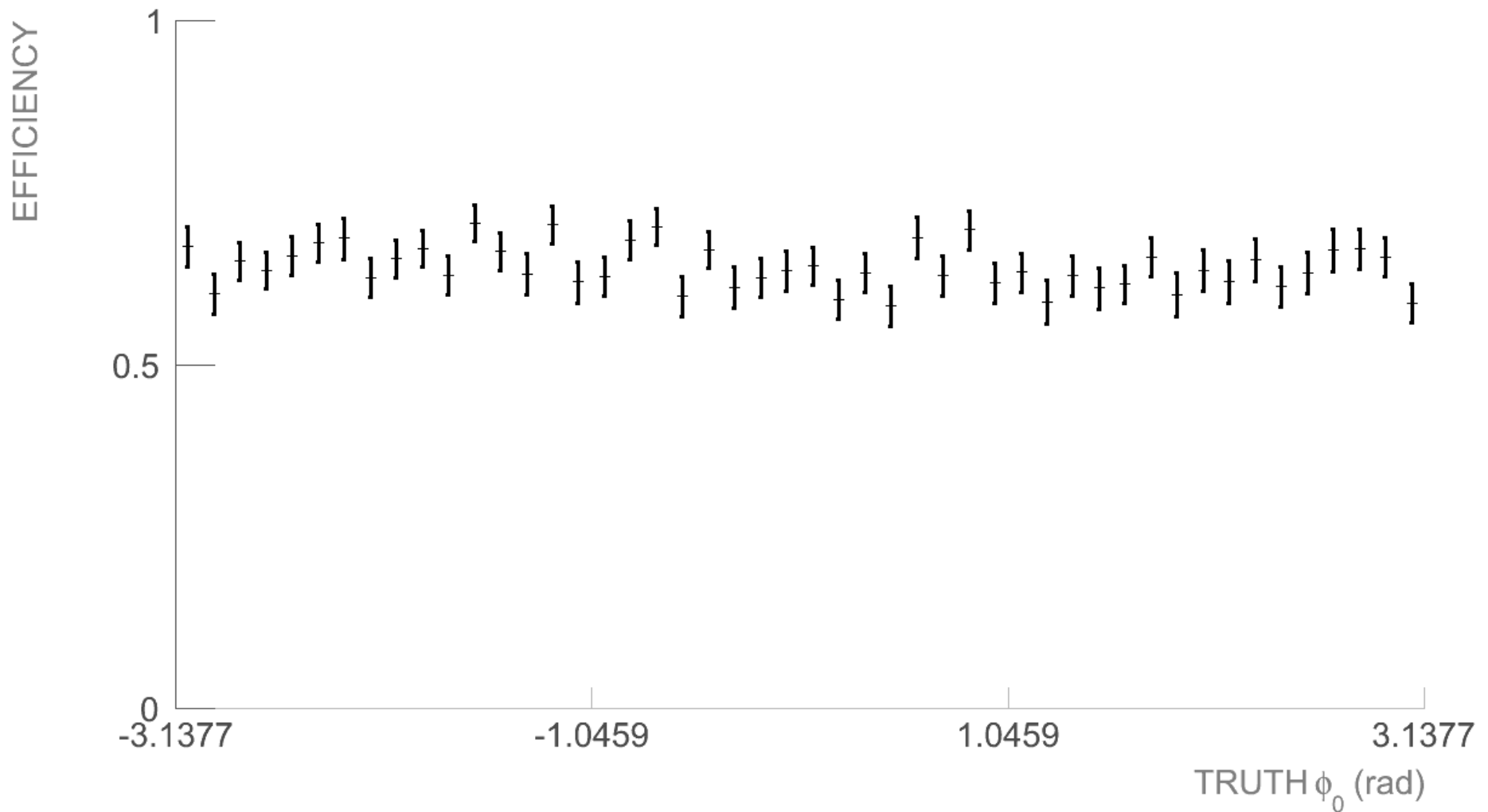
- NEXT PAGE CONTAINS SUMMARY TABLE
- **Options:**
  - Uses latest tagged SVN version
  - Latest 50x64x144 banks
  - Only hard scatter truth is considered
  - Eta = -2.5 .. 2.5
    - Will also make central-eta plots later this week

Run name	Bank configuration	Efficiency (primary trk)		# of Kfits
		All fiducial	Fiducial mu	
<b>Single muons + 2.2M pattgen; RW=2</b>				
(~100k tracks)	default bank only	81.65%	81.65%	
	Ss-shifted bank only	82.42%	82.42%	
	default+ss-shifted (hitfilter)	75.20%	75.20%	
	<b>DROP wrt default</b>	<b>6.45%</b>	<b>6.45%</b>	
<b>Whbb<sup>10<sup>34</sup></sup> + 2.2M pattgen; RW=2</b>				
(~1500 tracks)	default bank only	64.10%	82.30%	4237
	Ss-shifted bank only	65.04%	80.50%	
	default+ss-shifted (hitfilter)	59.48%	76.10%	438
	<b>DROP wrt default</b>	<b>4.62%</b>	<b>6.20%</b>	<b>9.67</b>
<b>Whbb<sup>10<sup>34</sup></sup> + 2.2M pattgen; RW=3</b>				
	default bank only	59.69%	77.90%	3207
	Ss-shifted bank only	60.02%	76.10%	
	default+ss-shifted (hitfilter)	47.70%	65.50%	276
	<b>DROP wrt default</b>	<b>11.99%</b>	<b>12.40%</b>	<b>11.62</b>
<b>Whbb<sup>10<sup>34</sup></sup> + 6M patts; RW=2</b>				
(ss-shifted pconst banks is smaller!)	default bank only	68.77%	86.70%	11172
	Ss-shifted bank only	68.48%	85.00%	
	default+ss-shifted (hitfilter)	67.29%	84.10%	1599
	<b>DROP wrt default</b>	<b>1.48%</b>	<b>2.60%</b>	<b>6.99</b>
<b>Whbb<sup>10<sup>34</sup></sup> + 8M patts; RW=2</b>				
(ss-shifted pconst banks is smaller!)	default bank only	69.50%	89.40%	14436
	Ss-shifted bank only	69.01%	85.80%	
	default+ss-shifted (hitfilter)	68.36%	85.80%	2198
	<b>DROP wrt default</b>	<b>1.14%</b>	<b>3.60%</b>	<b>6.57</b>

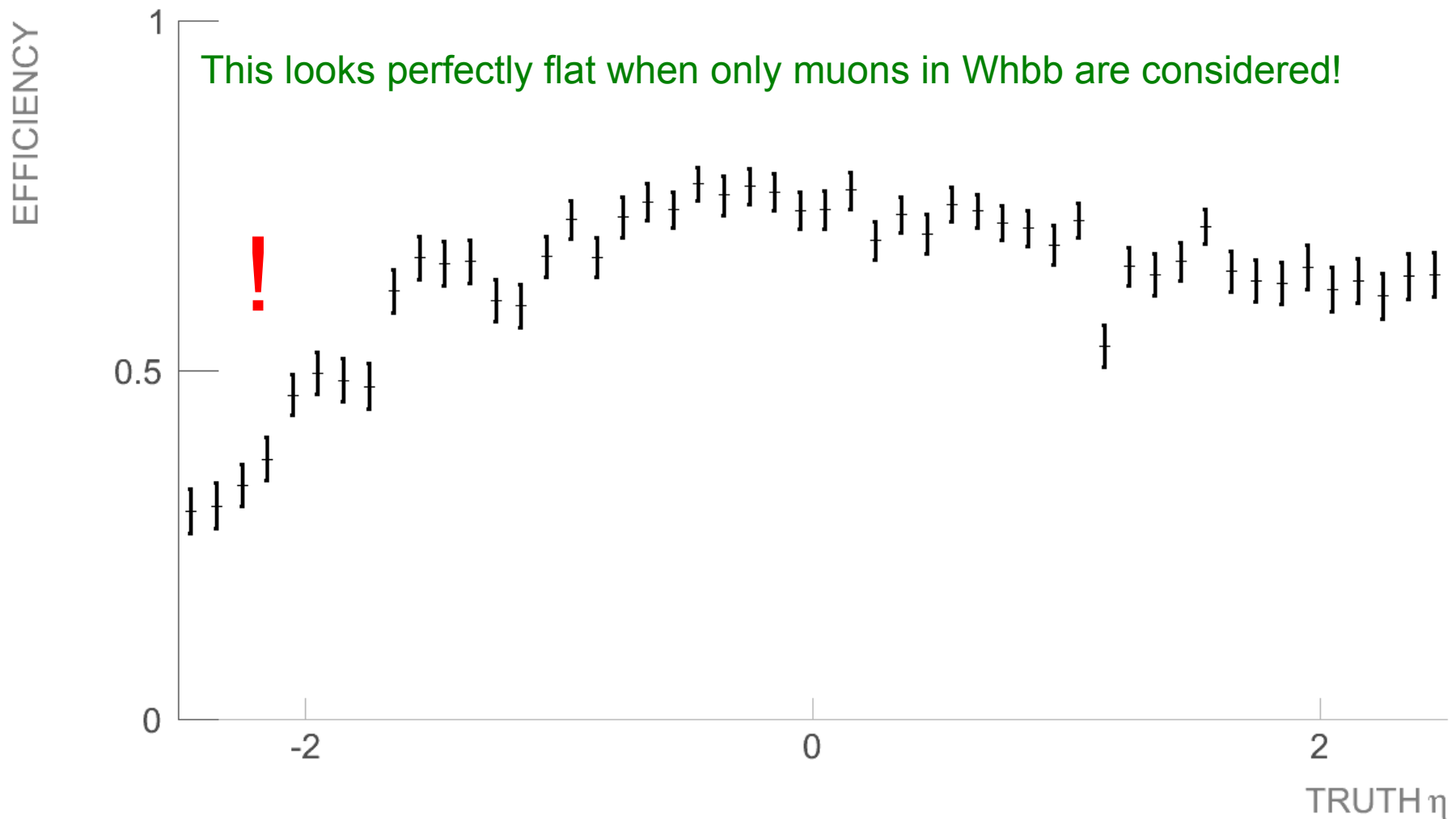
# Observations

- Overlap roadwarrior (RW=3) at  $10^{34}$  WHbb:
  - 25% reduction in final # of fits
  - BUT: 4.4% loss in efficiency
  - Makes ss-shifted scheme less effective
    - Can try to disable ONLY for ss-shifted roads
- Low overall non-muonic efficiency
  - Even when we only consider hard-scatter tracks
- SS-shifted scheme works well with RW=2
  - Need more pconst for ss-shifted banks
  - Extra parameter to tweak: max # of matches

# 2.2M pgen: eff -vs- phi



## 2.2M pgen: eff -vs- eta



# 2.2M pgen: fiducial truth eta

