

# STAR Update for Run 11

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Texas A&M University

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# Screen Shot of STAR Triggers for 500 GeV Transverse Program

**RUNNING** [to RCF]      **12060047**      pp500\_production\_2011 [PHYSICS]

<b>Started</b>	Tue Mar 1 11:18:40 2011
<b>Duration</b>	0 days, 0 hr, 10 min, 47 s

In progress...

**Menu**

- Monitoring
- Rate Charts
- Current Rates
- LED Status
- Slow Controls
- Current RunLog
- Today's ShiftLog
- Det Ops Checklist
- Critical Support
- TPC Temperature
- TPC Anode Scan

**Status**

RUNNING

12060047

Auto Update

 5 s Now
 

1226

online 3:3

Tonko Ljubicic/BNL

- LED Status
- Slow Controls
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- TPC Temperature
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**Status**

RUNNING

12060047

Auto Update

 5 s Now
 

1201

online 3:3

Tonko Ljubicic/BNL

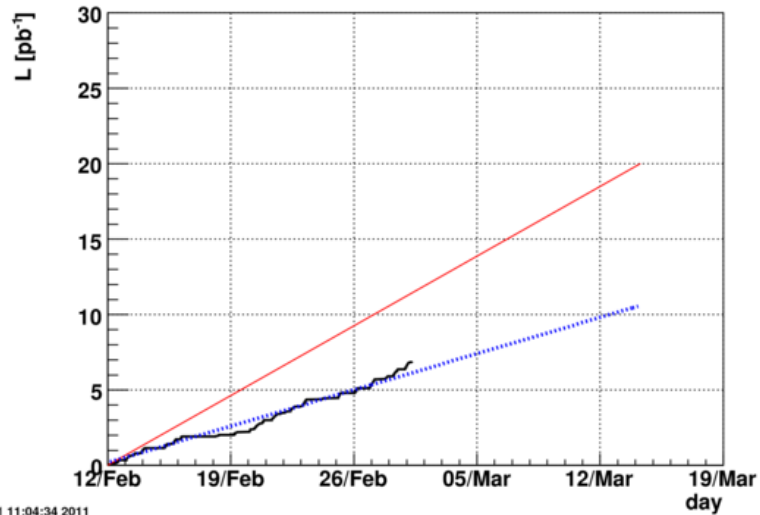
Trigger	DAQ Evts	DAQ Hz	L0 Evts	L0 Hz	Sca Hz	Sca Dead	Built	Xpress	Abt	Err
<a href="#">BHT0*VPDMB</a>	12411	20	12411	18	0	0 %	12411	0	2150	0
<a href="#">BHT1</a>	129995	206	129983	185	0	0 %	129995	0	0	0
<a href="#">BHT2</a>	27420	44	27416	38	0	-2147483648 %	27420	0	0	0
<a href="#">BHT2*JP1*L2Bgamma</a>	19136	29	19133	27	0	0 %	16986	0	0	0
<a href="#">BHT3*L2BW</a>	10499	17	10499	12	0	100 %	2884	2884	0	0
<a href="#">EHT0*JP1*L2Egamma</a>	11967	18	11964	19	0	100 %	11959	0	4784	0
<a href="#">EHT1*L2EW</a>	6393	12	6392	8	0	100 %	1608	1608	8	0
<a href="#">JP0</a>	9678	16	9678	15	0	100 %	9678	0	7614	0
<a href="#">JP1</a>	7935	10	7935	12	0	100 %	7935	0	0	0
<a href="#">JP2*L2JetHigh</a>	21380	30	21378	26	0	100 %	21095	0	0	0
<a href="#">AJP</a>	3791	2	3791	5	0	100 %	3791	0	285	0
<a href="#">BBCMB</a>	999	1	999	2	0	100 %	999	0	0	0
<a href="#">VPDMB</a>	119855	187	119845	188	0	100 %	119855	0	0	0
<a href="#">ZDCMB-Cat3</a>	1682	2	1682	2	0	100 %	1682	0	0	0
<a href="#">TOF0*VPDMB</a>	39641	57	39632	66	0	100 %	39641	0	0	0
<a href="#">TOF1</a>	258	0	258	0	0	100 %	258	0	0	0
<a href="#">FMSJP1</a>	69429	112	69417	106	0	100 %	69429	69429	0	0
<a href="#">FMSJP2</a>	45775	69	45765	62	0	100 %	45775	45775	0	0
<a href="#">FMSsmBS1</a>	55208	86	55195	86	0	100 %	55208	55208	0	0
<a href="#">FMSsmBS2</a>	58373	88	58359	82	0	100 %	58373	58373	0	0
<a href="#">FMSHT</a>	6459	8	6456	10	0	100 %	6459	6459	0	0
<a href="#">FMSled</a>	950	2	949	1	0	100 %	950	950	0	0
<a href="#">FPD</a>	53994	87	53977	104	0	100 %	53994	53994	0	0
<a href="#">ZeroBias</a>	1120	2	1120	2	0	0 %	1120	1120	0	0
<a href="#">laser</a>	2291	0	2291	0	0	0 %	2291	2291	0	0
<a href="#">FMSLqBS1</a>	45205	78	45178	83	0	0 %	45205	45205	0	0
<a href="#">FMSLqBS2</a>	30882	61	30861	45	0	0 %	30882	30882	0	0
<a href="#">ZDCMB-Cat0</a>	400	1	400	0	0	0 %	400	0	0	0
<a href="#">ZDCMB-Cat1</a>	390	0	389	1	0	0 %	390	0	0	0
<a href="#">hlt_diElectron</a>	515230	984	0	0	0	0 %	625	625	0	0
<a href="#">hlt_heavyFragment</a>	515230	984	0	0	0	0 %	214	214	0	0
<a href="#">hlt_randomEvents</a>	515230	984	0	0	0	0 %	277	277	0	0
<b>ALL</b>	<b>515235</b>	<b>984</b>	<b>514788</b>	<b>968</b>	<b>0</b>	<b>0 %</b>	<b>514969</b>	<b>316916</b>	<b>261</b>	<b>5</b>

Det	State	Dead	Evts	Hz	kB/s	Err	Evb	State	Built	Err	Hz	MB/s	Written	Free GB	RCF W+S
<a href="#">legacy01</a>	DEAD	0	0	0	0	0	0	0	0	0	0	N.A.	N.A.	N.A.	
<a href="#">legacy02</a>	DEAD	0	0	0	0	0	0	0	0	0	0	N.A.	N.A.	N.A.	
<b>evb01</b>	<b>RUNNING</b>	<b>0</b>	<b>104903</b>	<b>0</b>	<b>224</b>	<b>53</b>	<b>5 GB</b>	<b>6958 [94%]</b>	<b>106+12</b>						
<b>evb02</b>	<b>RUNNING</b>	<b>0</b>	<b>101000</b>	<b>0</b>	<b>178</b>	<b>48</b>	<b>5 GB</b>	<b>7008 [95%]</b>	<b>126+16</b>						
<b>evb03</b>	<b>RUNNING</b>	<b>5</b>	<b>105008</b>	<b>5</b>	<b>193</b>	<b>49</b>	<b>5 GB</b>	<b>7024 [95%]</b>	<b>105+18</b>						
<b>evb04</b>	<b>RUNNING</b>	<b>0</b>	<b>105151</b>	<b>0</b>	<b>197</b>	<b>50</b>	<b>6 GB</b>	<b>7025 [95%]</b>	<b>111+12</b>						
<b>evb05</b>	<b>RUNNING</b>	<b>0</b>	<b>98912</b>	<b>0</b>	<b>192</b>	<b>47</b>	<b>5 GB</b>	<b>7042 [96%]</b>	<b>106+18</b>						
<a href="#">evb06</a>	DEAD	0	0	0	0	0	0 GB	0 [-1%]	0+0						
<a href="#">evb07</a>	DEAD	0	0	0	0	0	0 GB	0 [-1%]	0+0						
<a href="#">evb08</a>	DEAD	0	0	0	0	0	0 GB	0 [-1%]	0+0						
<b>ALL</b>			<b>514974</b>	<b>5</b>	<b>984</b>	<b>247</b>	<b>26 GB</b>	<b>35057 [95%]</b>	<b>554+76</b>						

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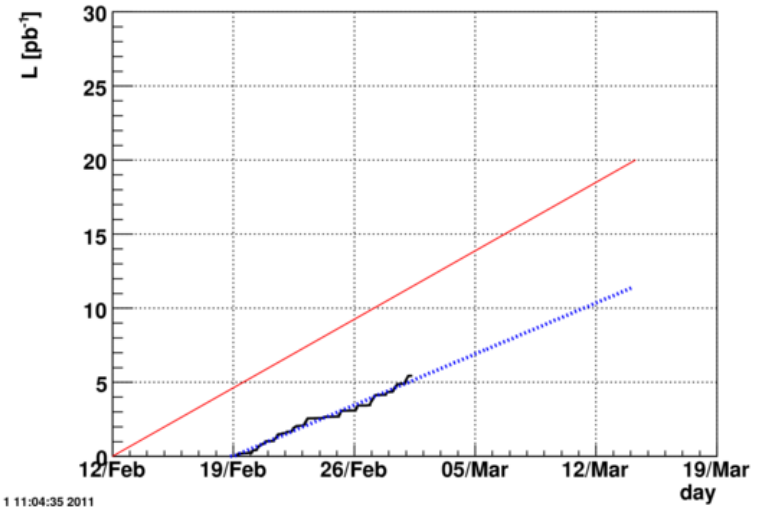
# Goals, current status and projections

BHT1



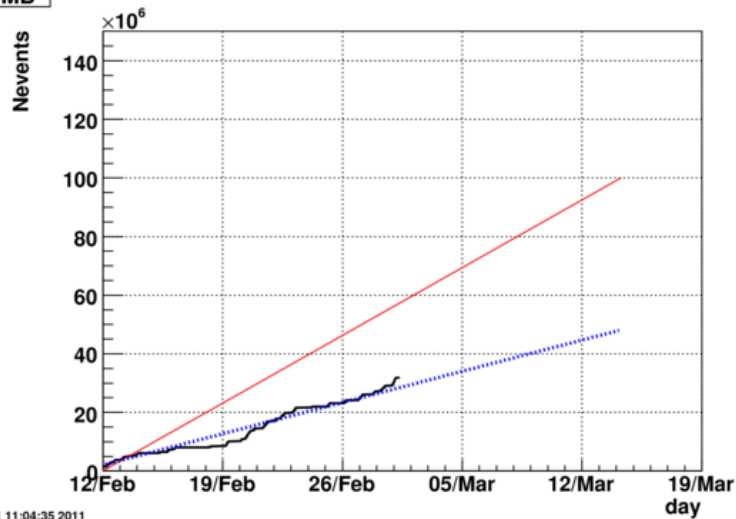
Tue Mar 1 11:04:34 2011

FMSJP2



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VPDMB



Tue Mar 1 11:04:35 2011

# Single-Spin Asymmetry

“Good hit” = intersection of one horizontal and one vertical slat,  
each having highest ADC – PED

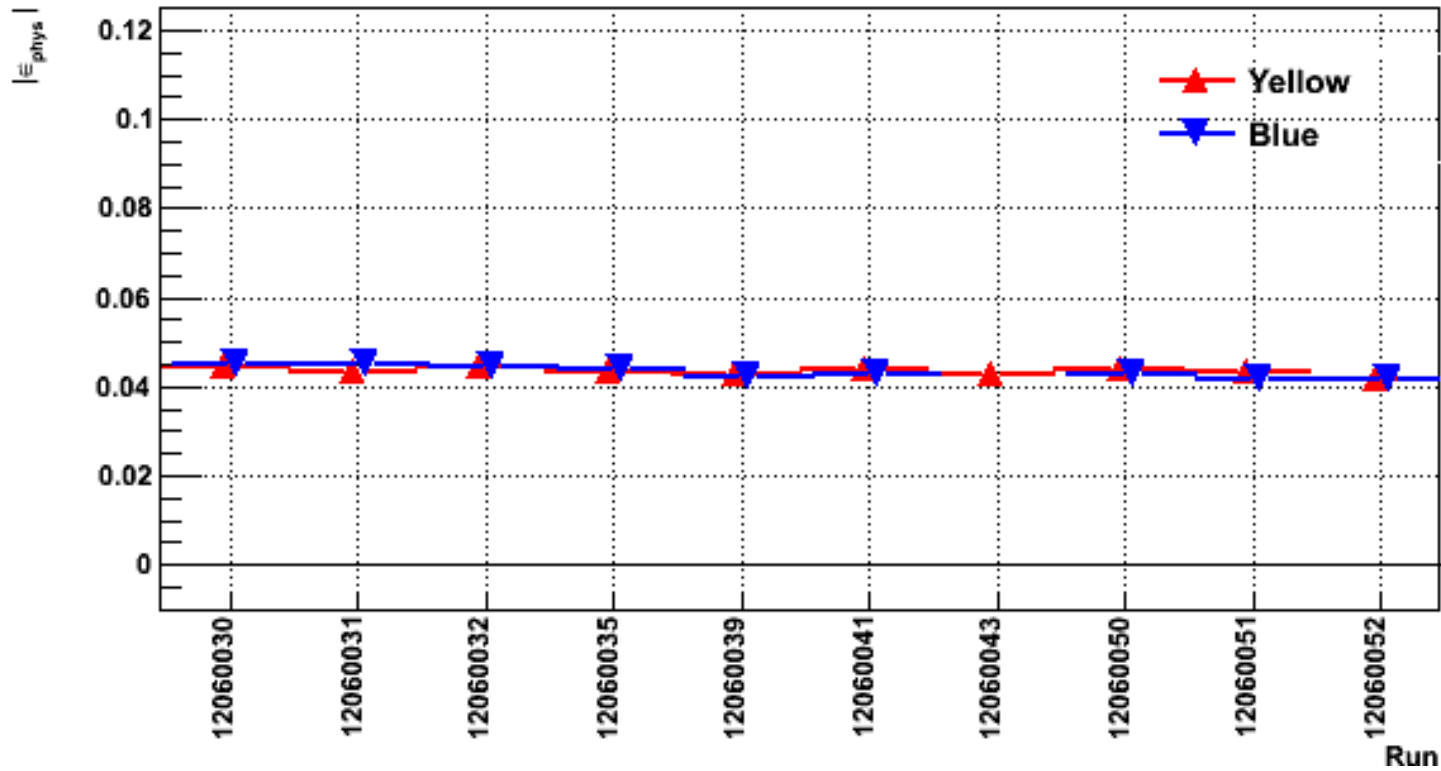
At maximum, one good hit in a detector per event

“Square root formula”

$$\epsilon_{phys} = \frac{\sqrt{N_L^\uparrow N_R^\downarrow} - \sqrt{N_L^\downarrow N_R^\uparrow}}{\sqrt{N_L^\uparrow N_R^\downarrow} + \sqrt{N_L^\downarrow N_R^\uparrow}}$$

Hit counts are summed over the second beam spin state

# ZDC scaler polarimetry



# Conclusion

- Running wide array of triggers for Run 11 pp500 transverse program
- Need more luminosity to reach our goals
- ZDC scaler polarimetry working very well during Run 11