

### Number of Trigger Crates:

Sub-Detector	Number of Trigger Crates	SSP Slot	
BCAL	8	1	3
FCAL	12	2,3	4,5
TAGM	1	4	6
TAGH	1	5	7
PS	1	6	8
ST	1	7	9
TOF	1	8	10

**Trigger time defined by:** TAGM, TAGH, ST, FCAL, TOF, BCAL  
(sorted by smallest uncertainties)

### TAGH trigger:

- 131 counters below the microscope will always be use in the trigger
- $81 + 5 = 86$  counters above the microscope (optional)

### TS triggers:

Trigger	Trigger Bit
FCAL LED (external to TS)	29
BCAL LED (external to TS)	30
Random	31

Trigger Type	Trigger Bit
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$E_{\text{FCAL}} > E_{\text{THR}}$ (two thresholds)	0,1
$E_{\text{BCAL}} > E_{\text{THR}}$ (two thresholds)	2,3
$A \cdot E_{\text{BCAL}} + B \cdot E_{\text{FCAL}} > E_{\text{THR}}$ ( $E_{\text{FCAL}}, E_{\text{BCAL}}$ )	4
BCAL cosmics	5
TAGM	6
TAGH	7
PSC (coincidence)	8
ST	9
TOF (cluster finding)	10

Coincidences

TAGM + PS	11
TAGM + $N_{\text{ST}}$ ( $N_{\text{ST}} > 0$ )	12
TAGM + BCAL ( $E > E_{\text{THR}}$ )	13
TAGM + FCAL ( $E > E_{\text{THR}}$ )	14
TAGM + ( $E_{\text{FCAL}}, E_{\text{BCAL}}$ )	15
TAGM + ( $E_{\text{FCAL}}, E_{\text{BCAL}}$ ) + $N_{\text{ST}}$	16
TAGM + ( $E_{\text{FCAL}}, E_{\text{BCAL}}$ ) + $N_{\text{ST}}$ + $N_{\text{TOF}}$	17
TAGH + PS	18
TAGH + $N_{\text{ST}}$ ( $N_{\text{ST}} > 0$ )	19
TAGH + BCAL ( $E > E_{\text{THR}}$ )	20
TAGH + FCAL ( $E > E_{\text{THR}}$ )	21
TAGH + ( $E_{\text{FCAL}}, E_{\text{BCAL}}$ )	22
TAGH + ( $E_{\text{FCAL}}, E_{\text{BCAL}}$ ) + $N_{\text{ST}}$	23
TAGH + ( $E_{\text{FCAL}}, E_{\text{BCAL}}$ ) + $N_{\text{ST}}$ + $N_{\text{TOF}}$	24
$N_{\text{ST}} + N_{\text{TOF}} + \text{FCAL}$ ( $E > E_{\text{THR}}$ )	25
$N_{\text{ST}} + N_{\text{TOF}}$	26