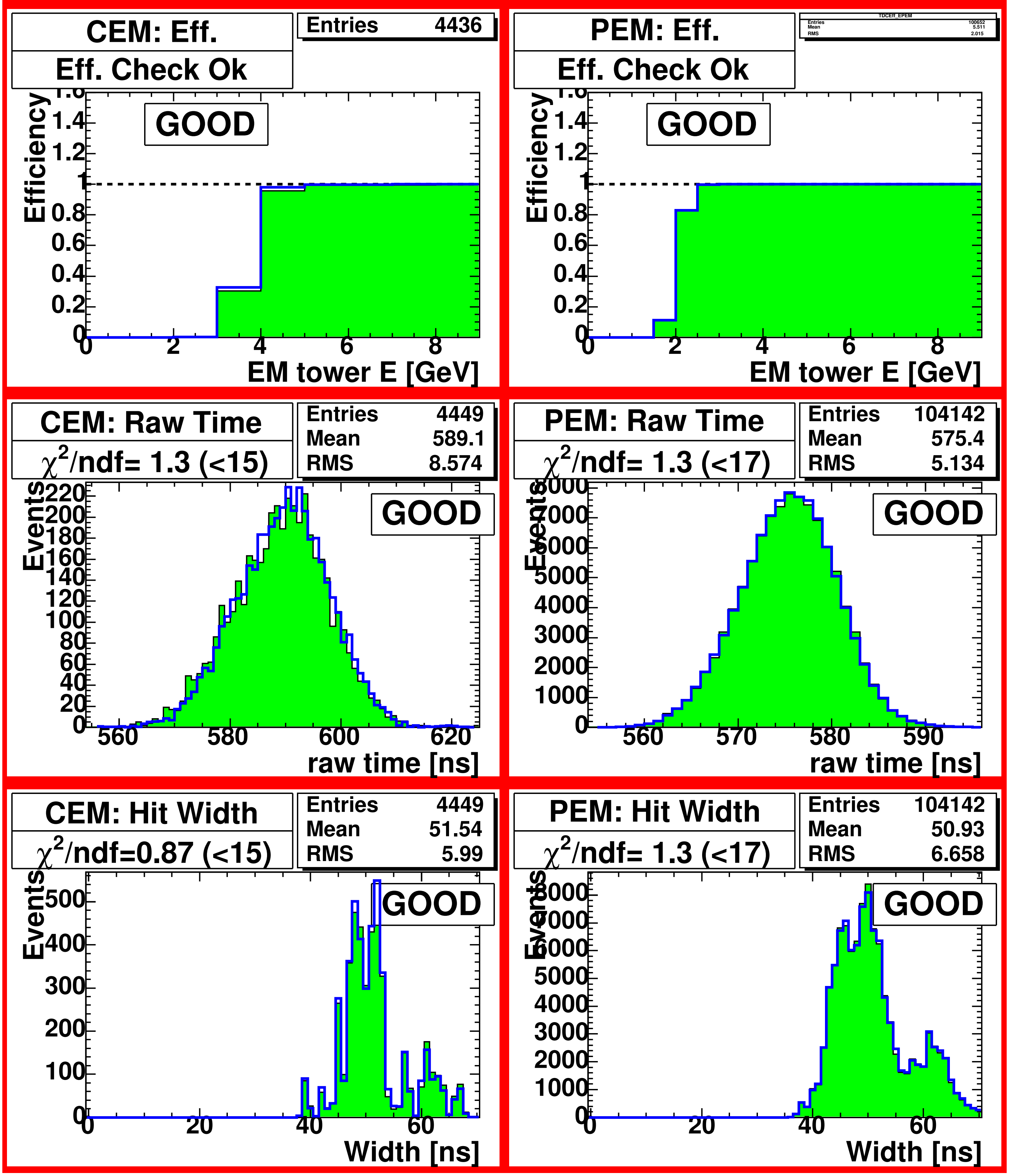
ObjectMon #4 TimeMonitor   EMTDC Timing

COSMICS DATA SHOULD NOT BE RUN WITH PHYSICS TCL!!!



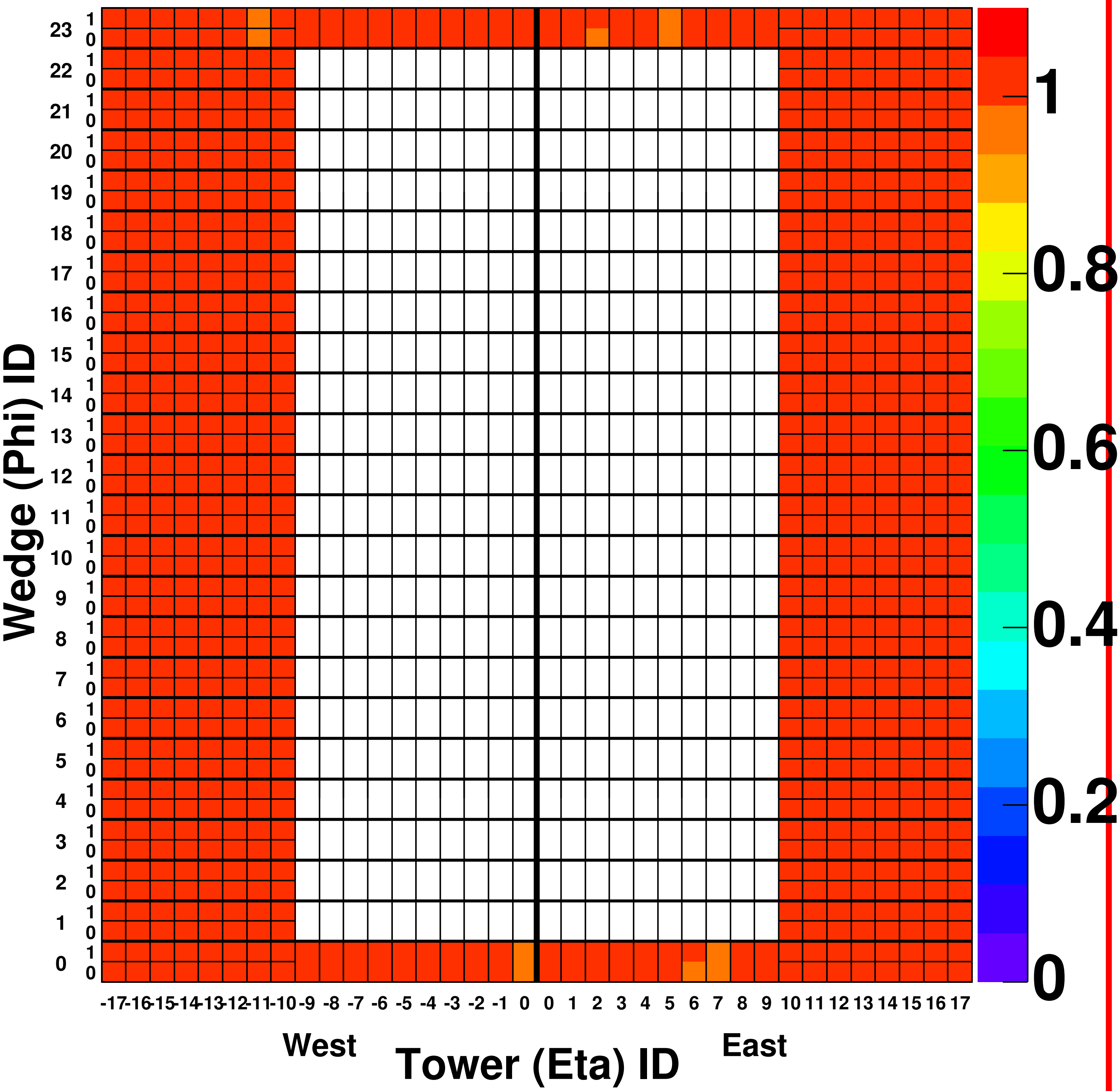
ObjectMon #9 TimeMonitor EMTD: 100% Eff 2D

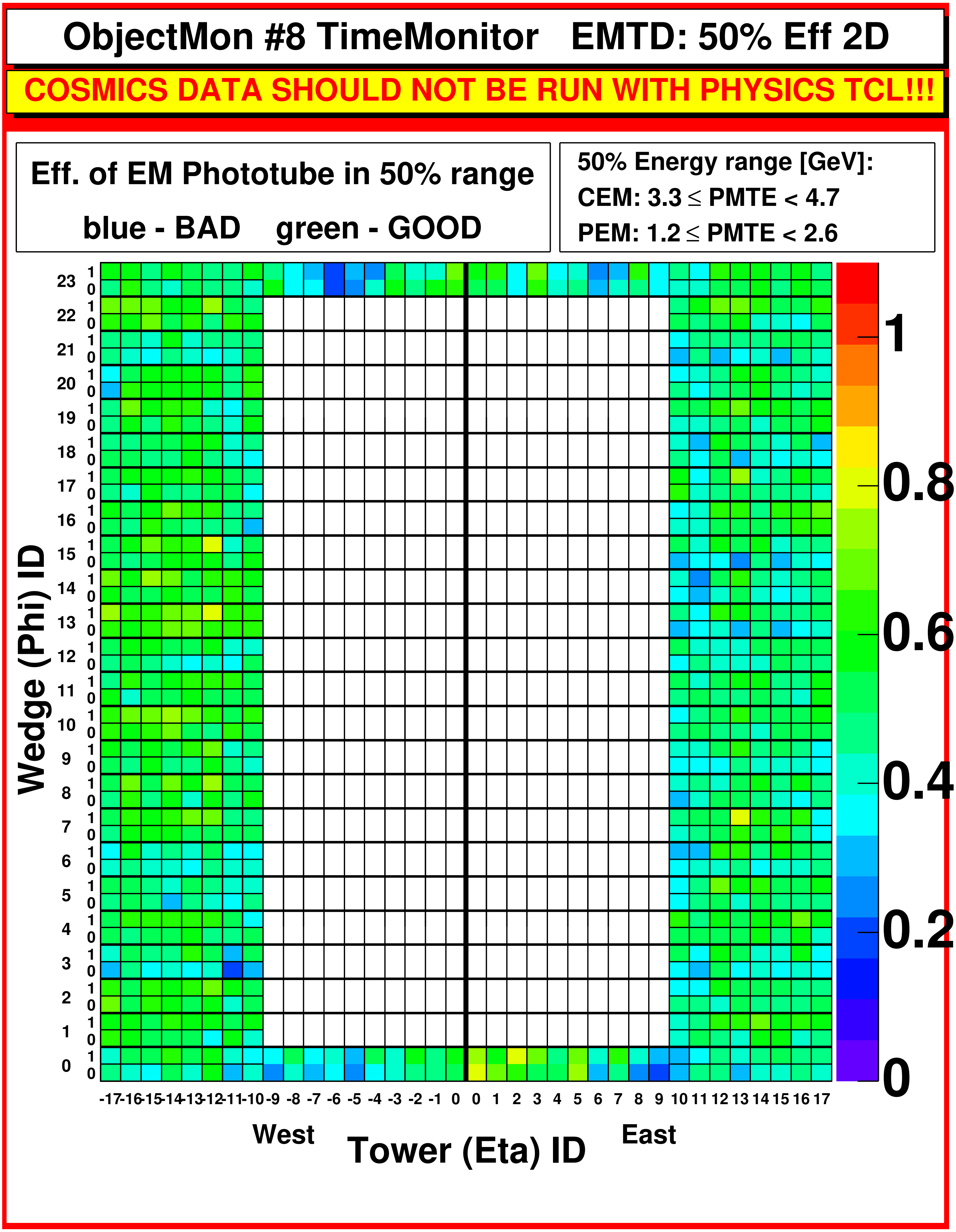
COSMICS DATA SHOULD NOT BE RUN WITH PHYSICS TCL!!!

Eff. of EM Phototubes in 100% range

not red are BAD

100% Energy range [GeV]:
CEM: PMTE $\geq$ 6.0
PEM: PMTE $\geq$ 3.0




ObjectMon #8 TimeMonitor EMTD: 50% Eff 2D
COSMICS DATA SHOULD NOT BE RUN WITH PHYSICS TCL!!!
Eff. of EM Phototube in 50% range
blue - BAD green - GOOD
50% Energy range [GeV]:
CEM: 3.3 ≤ PMTE < 4.7
PEM: 1.2 ≤ PMTE < 2.6
Wedge (Phi) ID
Tower (Eta) ID
West
East
0
0.2
0.4
0.6
0.8
1

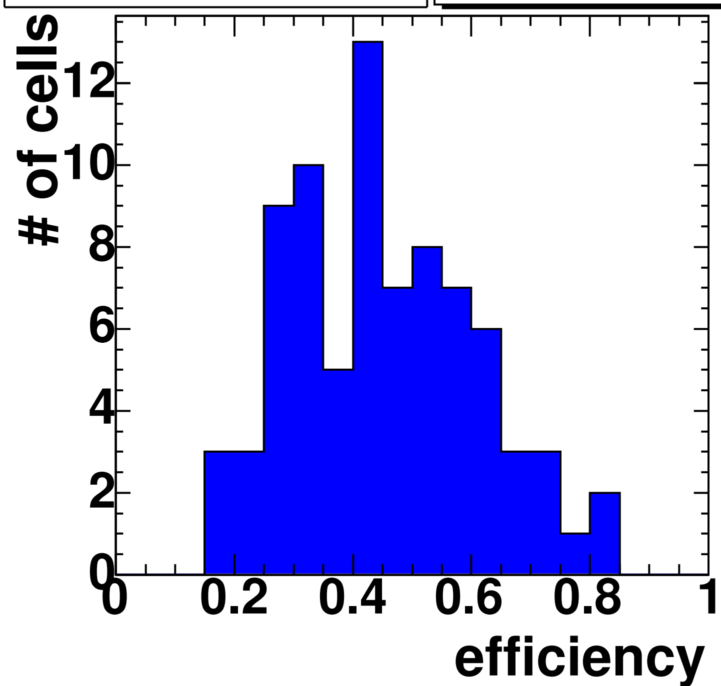
ObjectMon #10 TimeMonitor EMTD: 50% and 100% Eff

COSMICS DATA SHOULD NOT BE RUN WITH PHYSICS TCL!!!

CEM: Cell Eff. Distrib. (50%)

Not Checked

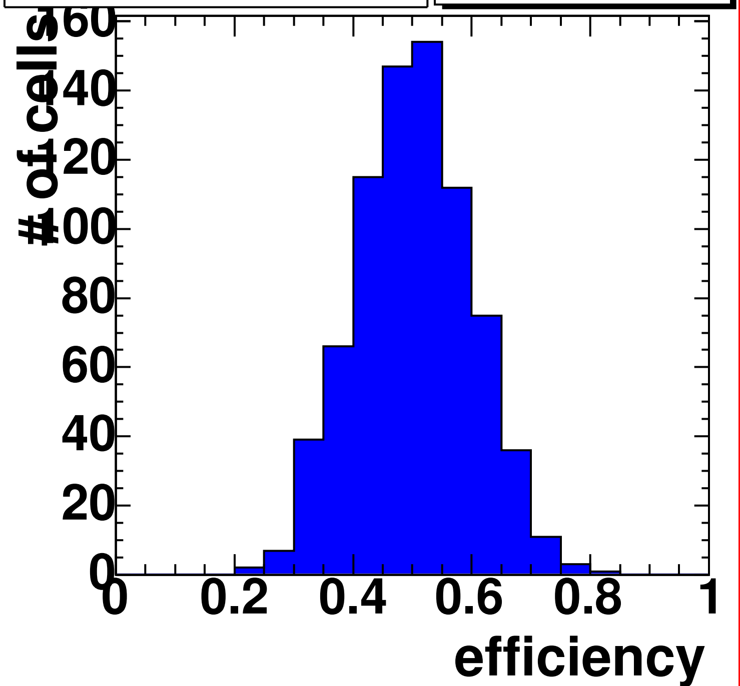
Entries	80
Mean	0.4564
RMS	0.1557



PEM: Cell Eff. Distrib. (50%)

Not Checked

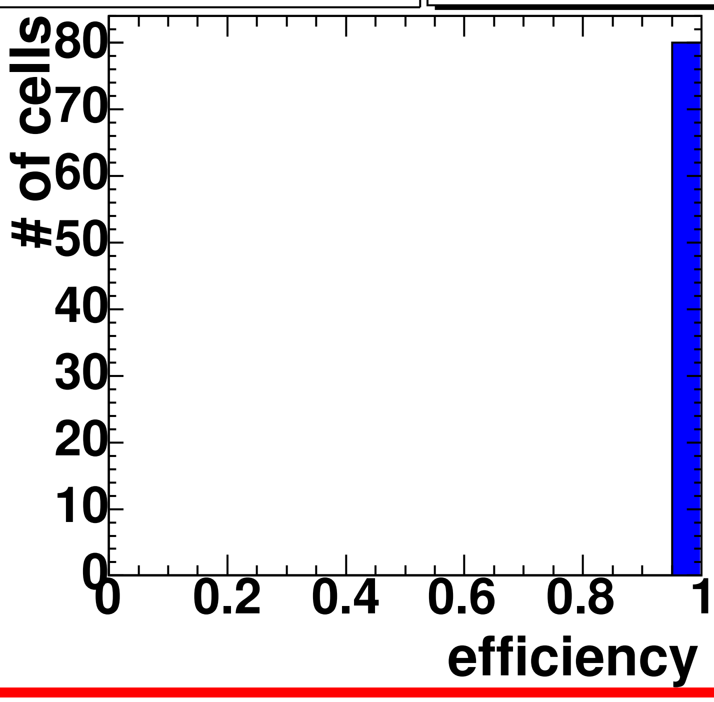
Entries	768
Mean	0.5018
RMS	0.09659



CEM: Cell Eff. Distrib. (100%)

Not Checked

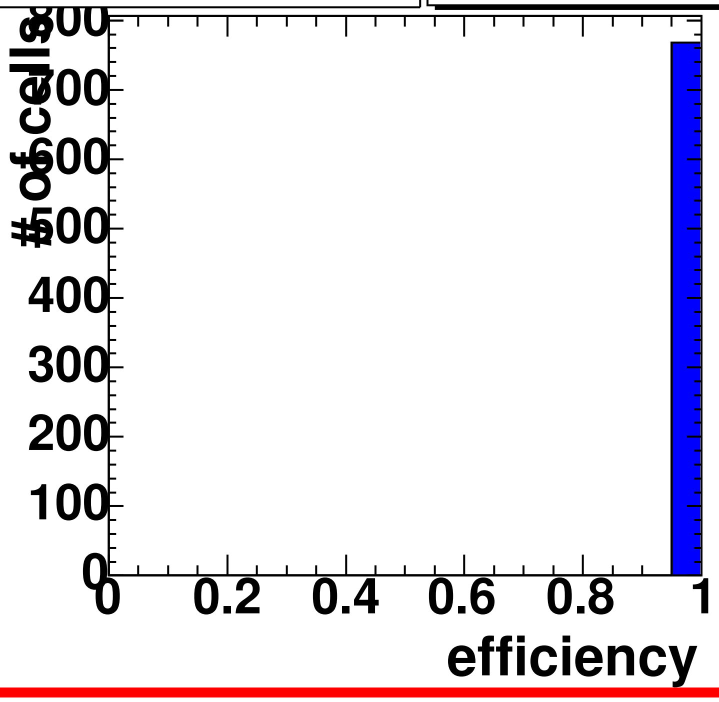
Entries	80
Mean	0.9971
RMS	0.004875



PEM: Cell Eff. Distrib. (100%)

Not Checked

Entries	768
Mean	0.9989
RMS	0.0009136

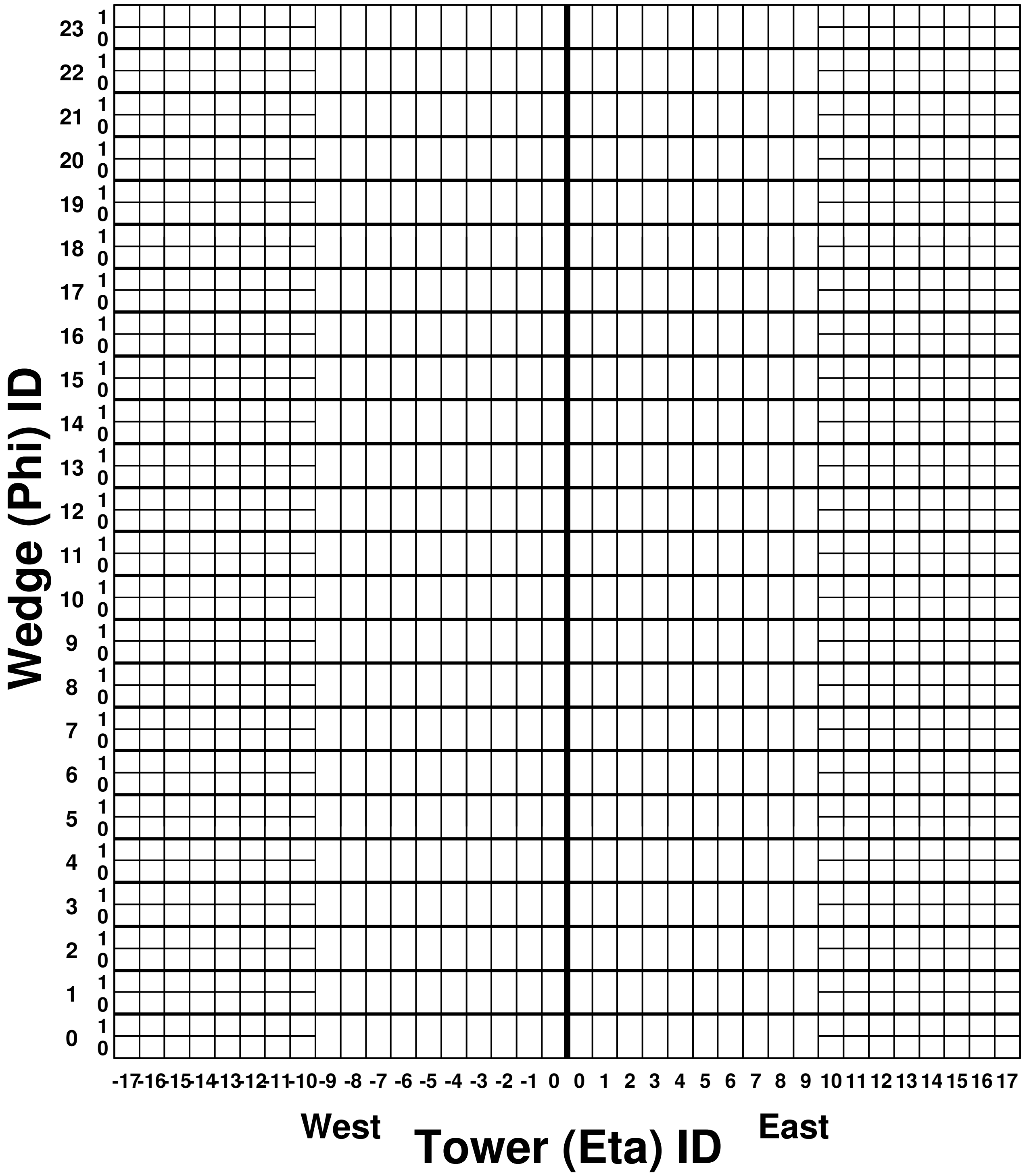


ObjectMon #11 TimeMonitor EMTD: Fake Firings

COSMICS DATA SHOULD NOT BE RUN WITH PHYSICS TCL!!!

EMTDC Fake Firings Occupancy
problematic towers are colored

Energy range [GeV]:
Eeven+Eodd < 0.15
ASD Time Window is
520.0 ns < t_0 < 652.0 ns



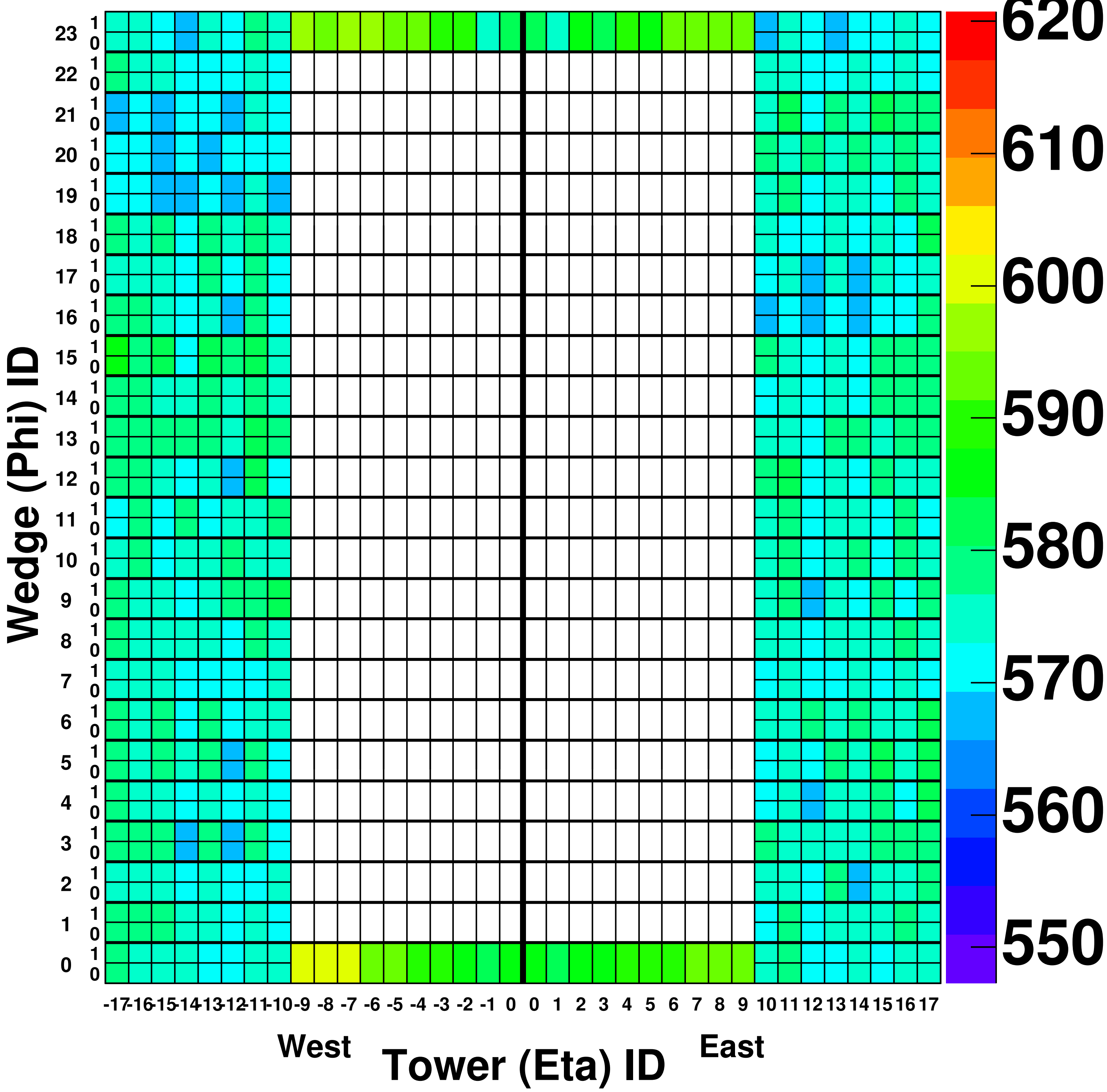
ObjectMon #12 TimeMonitor   EMTD: Mean Raw t0

COSMICS DATA SHOULD NOT BE RUN WITH PHYSICS TCL!!!

EMTDC: Mean Raw t_0

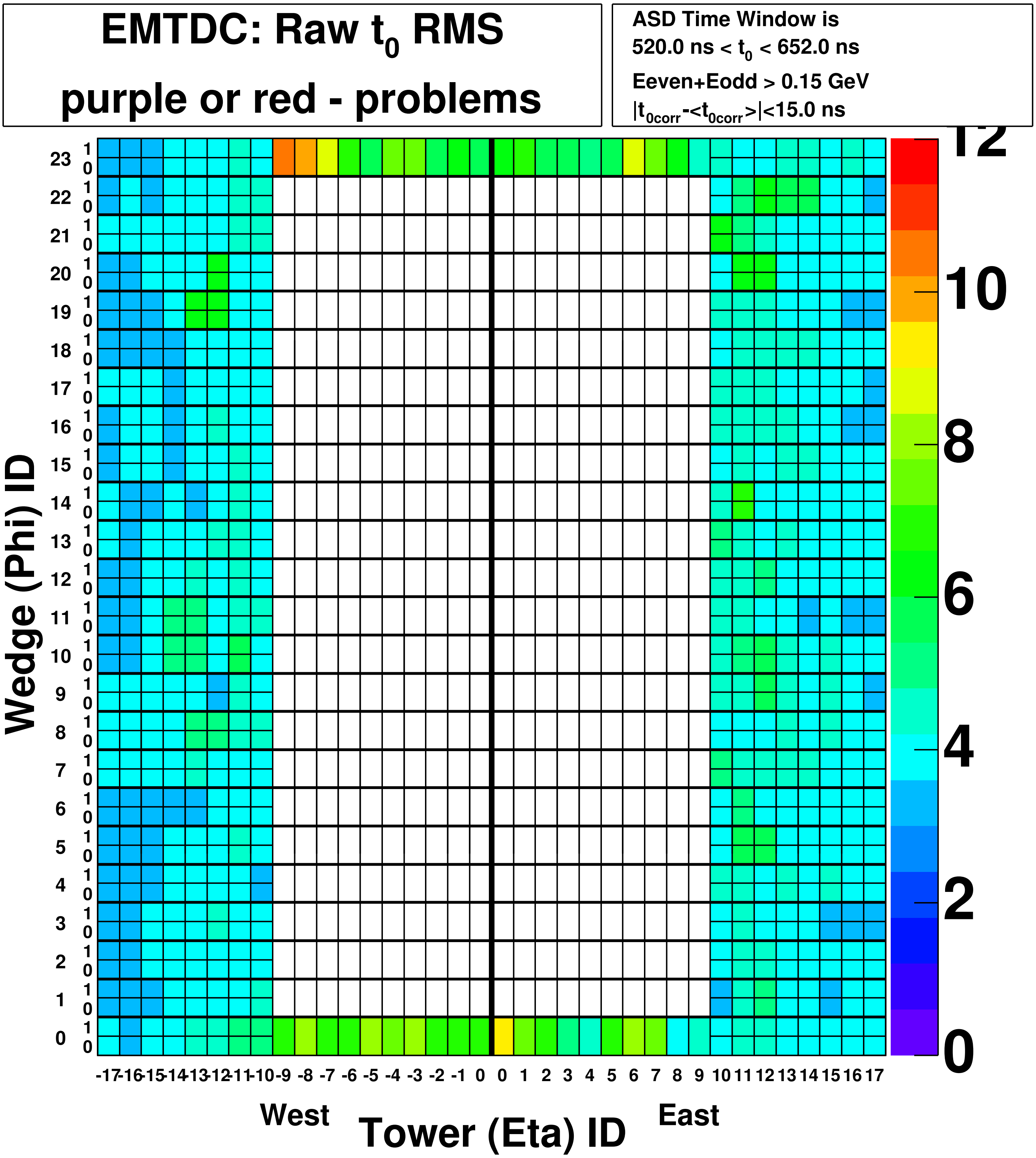
purple or red - problems

ASD Time Window is
520.0 ns < t_0 < 652.0 ns
Eeven+Eodd > 0.15 GeV
$|t_{0corr}-<t_{0corr}>|<15.0$ ns



ObjectMon #13 TimeMonitor   EMTD: RMS for Raw t0

COSMICS DATA SHOULD NOT BE RUN WITH PHYSICS TCL!!!



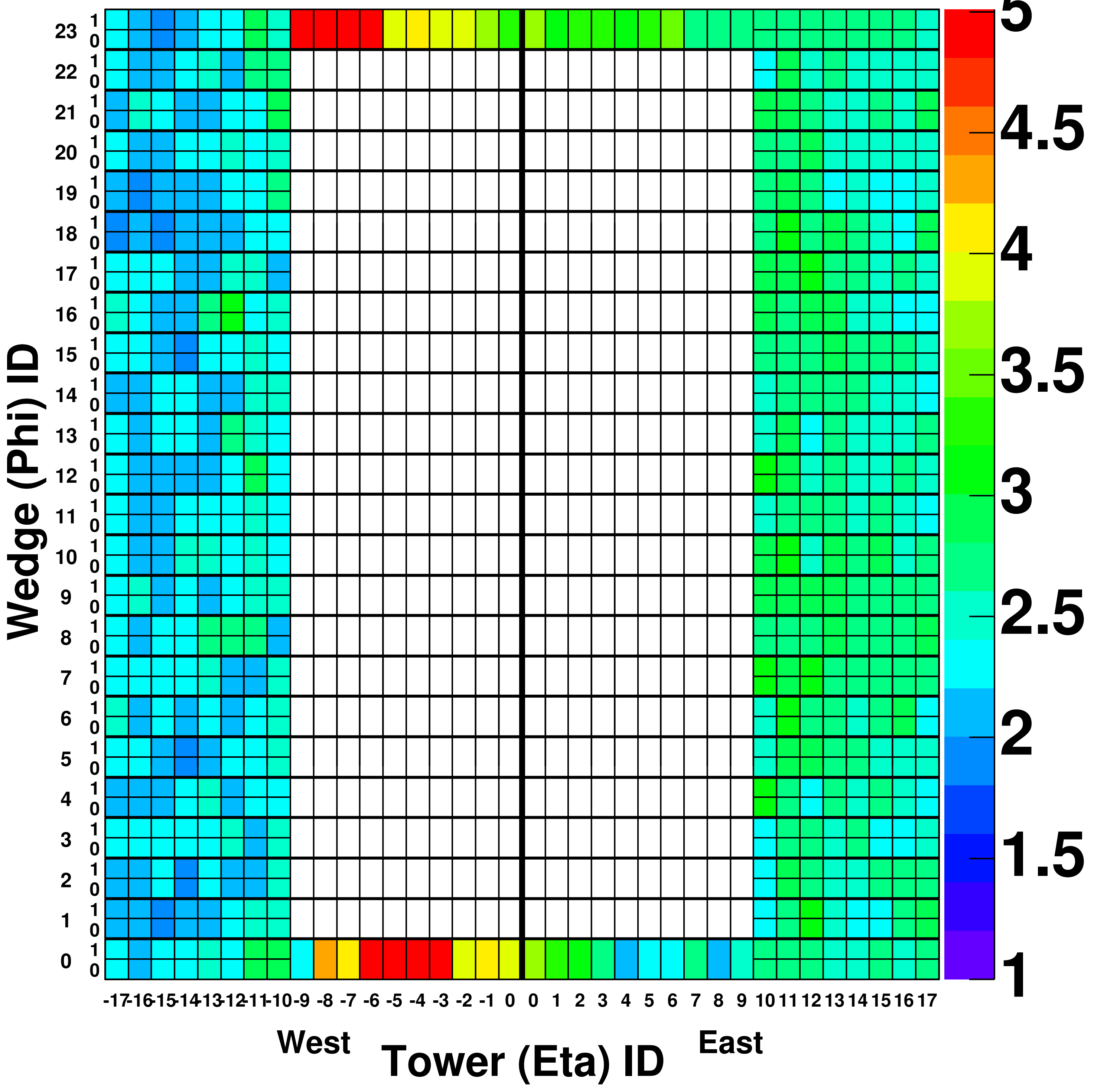
ObjectMon #14 TimeMonitor EMTD: RMS for Corrected t0

COSMICS DATA SHOULD NOT BE RUN WITH PHYSICS TCL!!!

EMTDC: Corrected t_0 RMS

purple or red - problems

ASD Time Window is
520.0 ns < t_0 < 652.0 ns
Eeven+Eodd > 0.15 GeV
$|t_{0corr}-<t_{0corr}>|<15.0$ ns



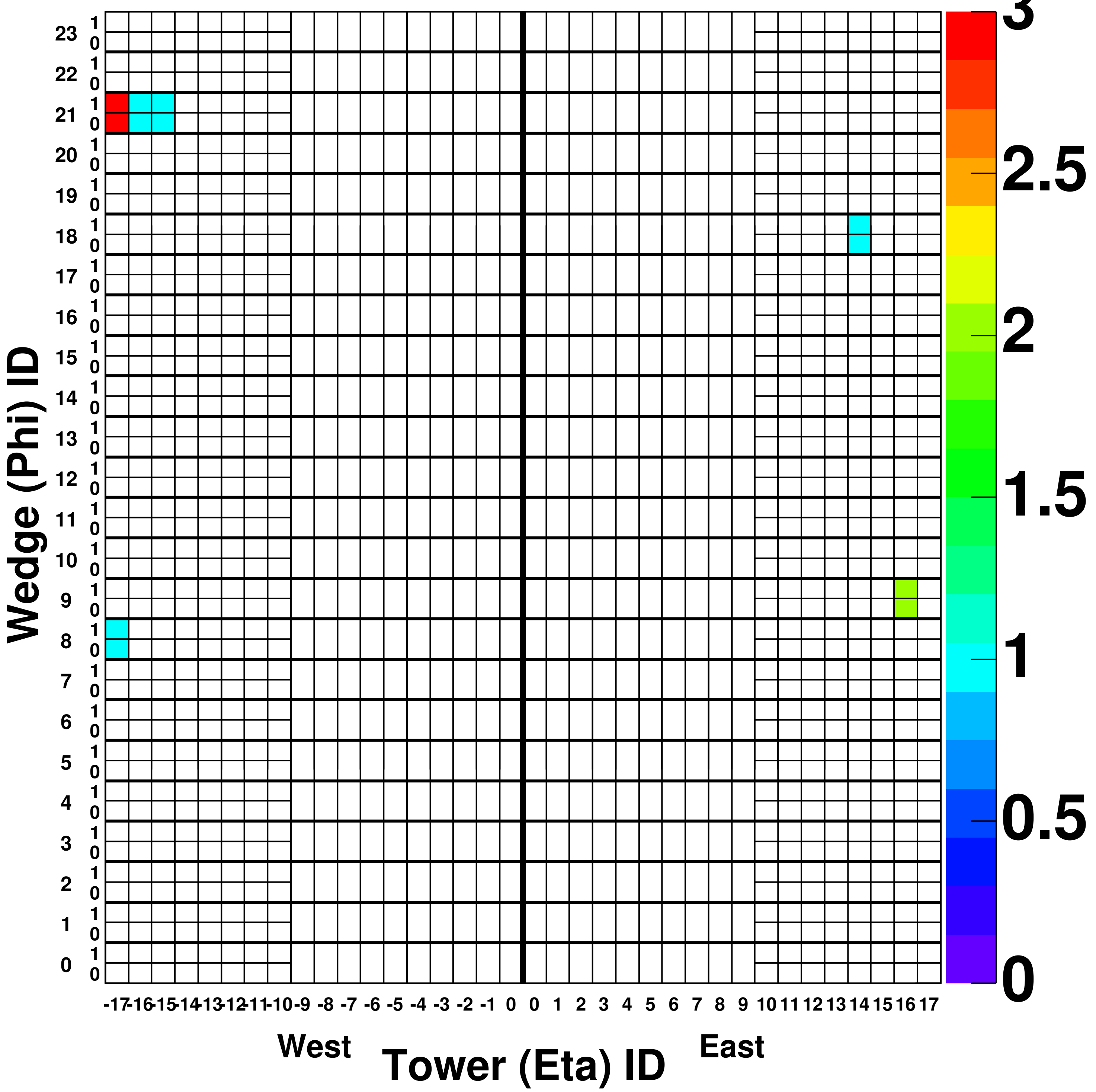
ObjectMon #16 TimeMonitor   EMTD: Multiple Firings + Ok Width

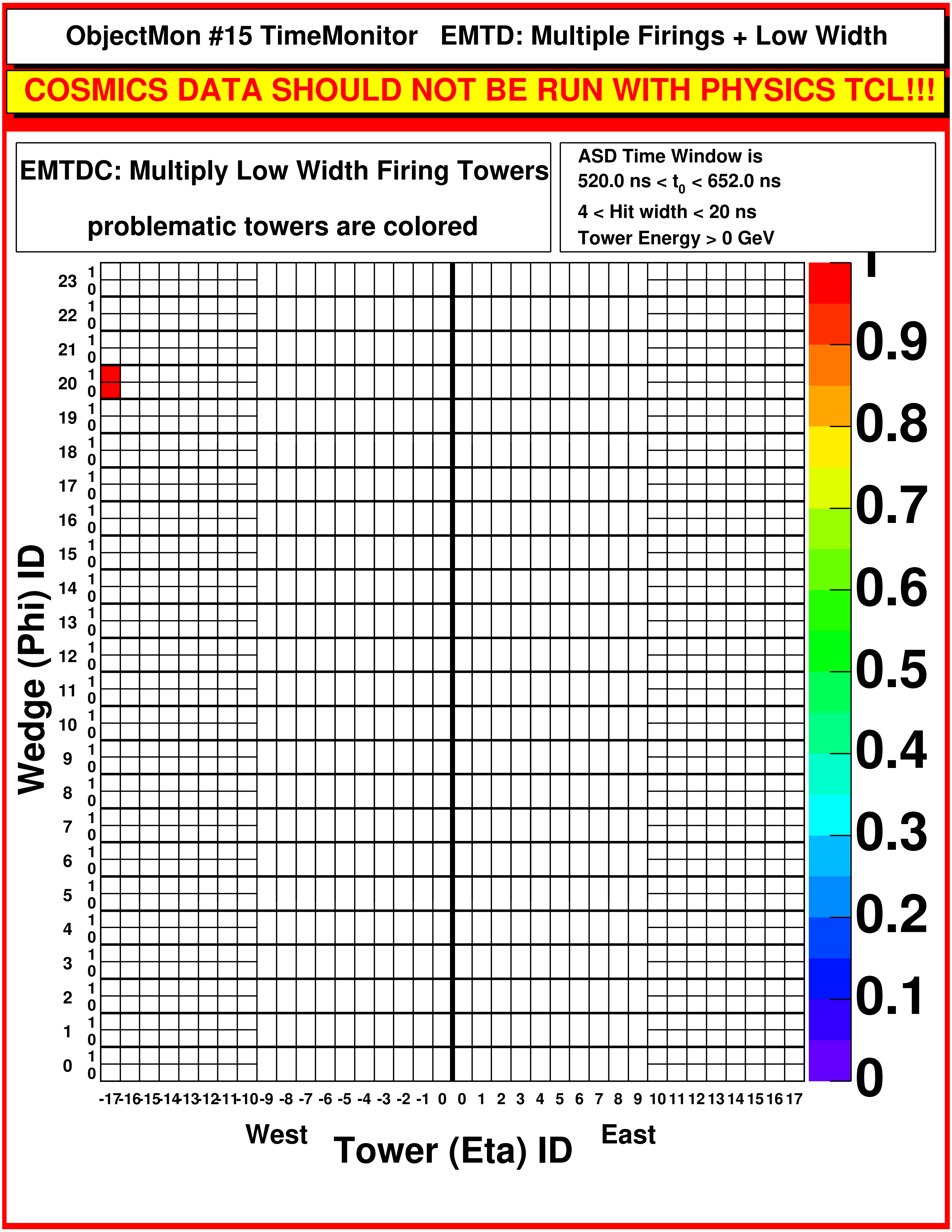
COSMICS DATA SHOULD NOT BE RUN WITH PHYSICS TCL!!!

EMTDC: Multiply Ok Width Firing Towers

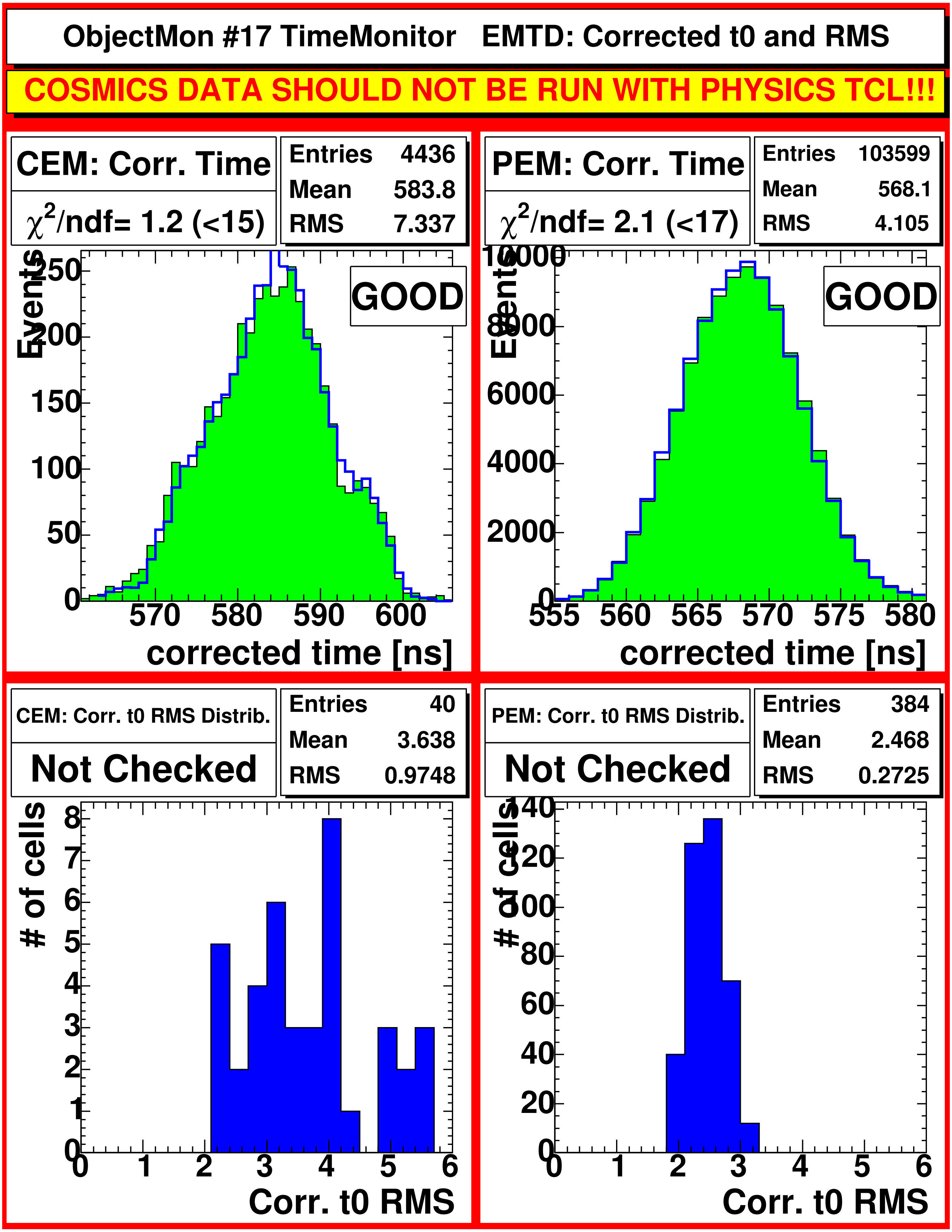
problematic towers are colored

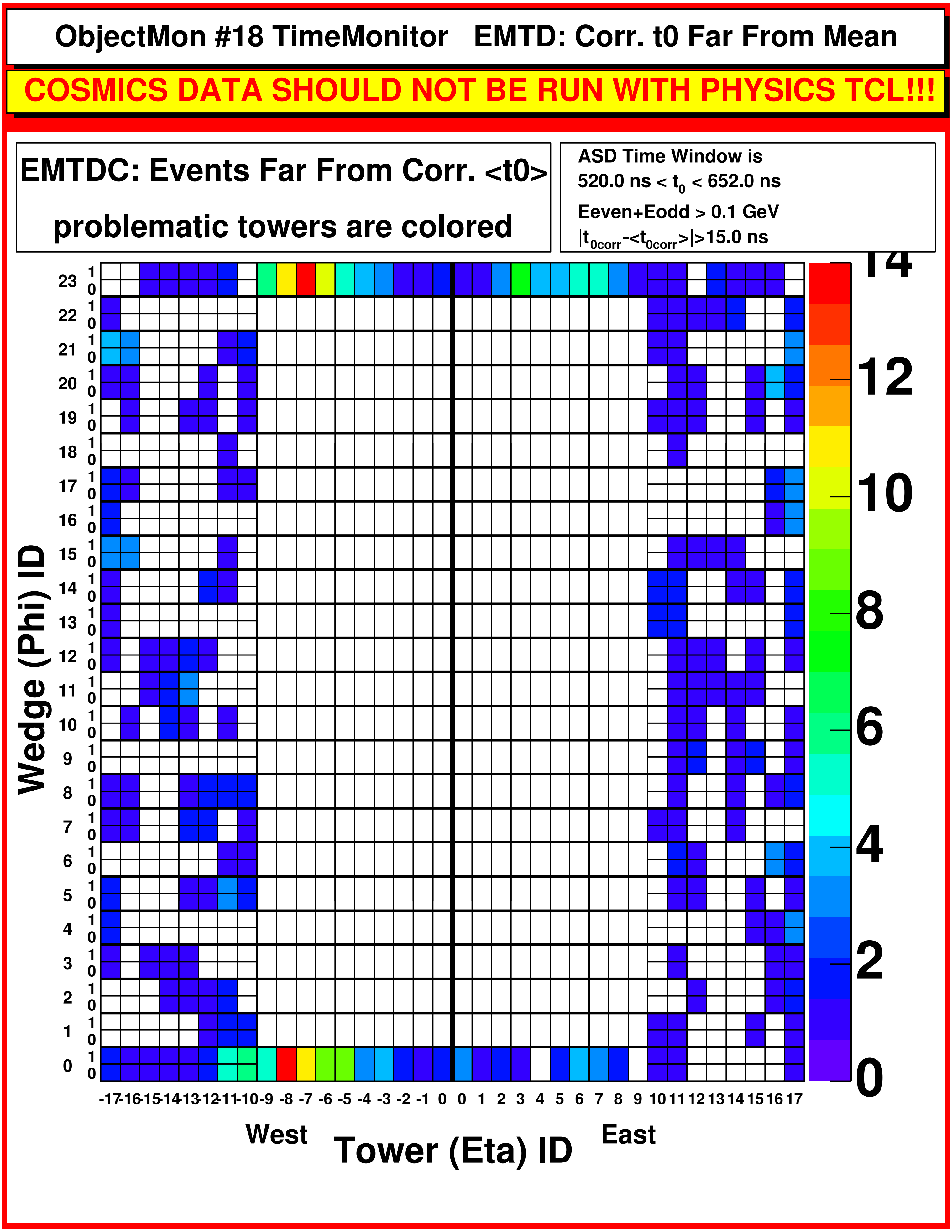
ASD Time Window is
520.0 ns < t_0 < 652.0 ns
20 < Hit width < 1000 ns
Tower Energy > 0 GeV





ObjectMon #15 TimeMonitor EMTD: Multiple Firings + Low Width
COSMICS DATA SHOULD NOT BE RUN WITH PHYSICS TCL!!!
EMTDC: Multiply Low Width Firing Towers
problematic towers are colored
ASD Time Window is
520.0 ns < t_0 < 652.0 ns
4 < Hit width < 20 ns
Tower Energy > 0 GeV
Wedge (Phi) ID
Tower (Eta) ID
West
East


ObjectMon #17 TimeMonitor EMTD: Corrected t0 and RMS
COSMICS DATA SHOULD NOT BE RUN WITH PHYSICS TCL!!!
CEM: Corr. Time
χ2/ndf= 1.2 (<15)
Entries 4436
Mean 583.8
RMS 7.337
GOOD
Events
corrected time [ns]
PEM: Corr. Time
χ2/ndf= 2.1 (<17)
Entries 103599
Mean 568.1
RMS 4.105
GOOD
Events
corrected time [ns]
CEM: Corr. t0 RMS Distrib.
Not Checked
Entries 40
Mean 3.638
RMS 0.9748
# of cells
Corr. t0 RMS
PEM: Corr. t0 RMS Distrib.
Not Checked
Entries 384
Mean 2.468
RMS 0.2725
# of cells
Corr. t0 RMS


ObjectMon #18 TimeMonitor EMTD: Corr. t0 Far From Mean
COSMICS DATA SHOULD NOT BE RUN WITH PHYSICS TCL!!!
EMTDC: Events Far From Corr. <t0>
problematic towers are colored
ASD Time Window is
520.0 ns < t0 < 652.0 ns
Eeven+Eodd > 0.1 GeV
|t0corr-<t0corr>|>15.0 ns
Wedge (Phi) ID
Tower (Eta) ID
West
East