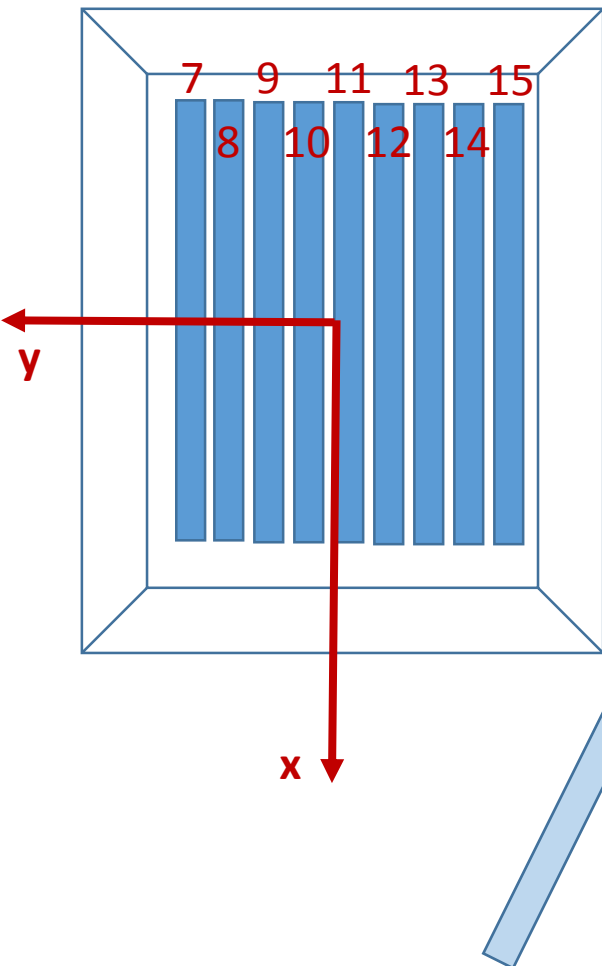
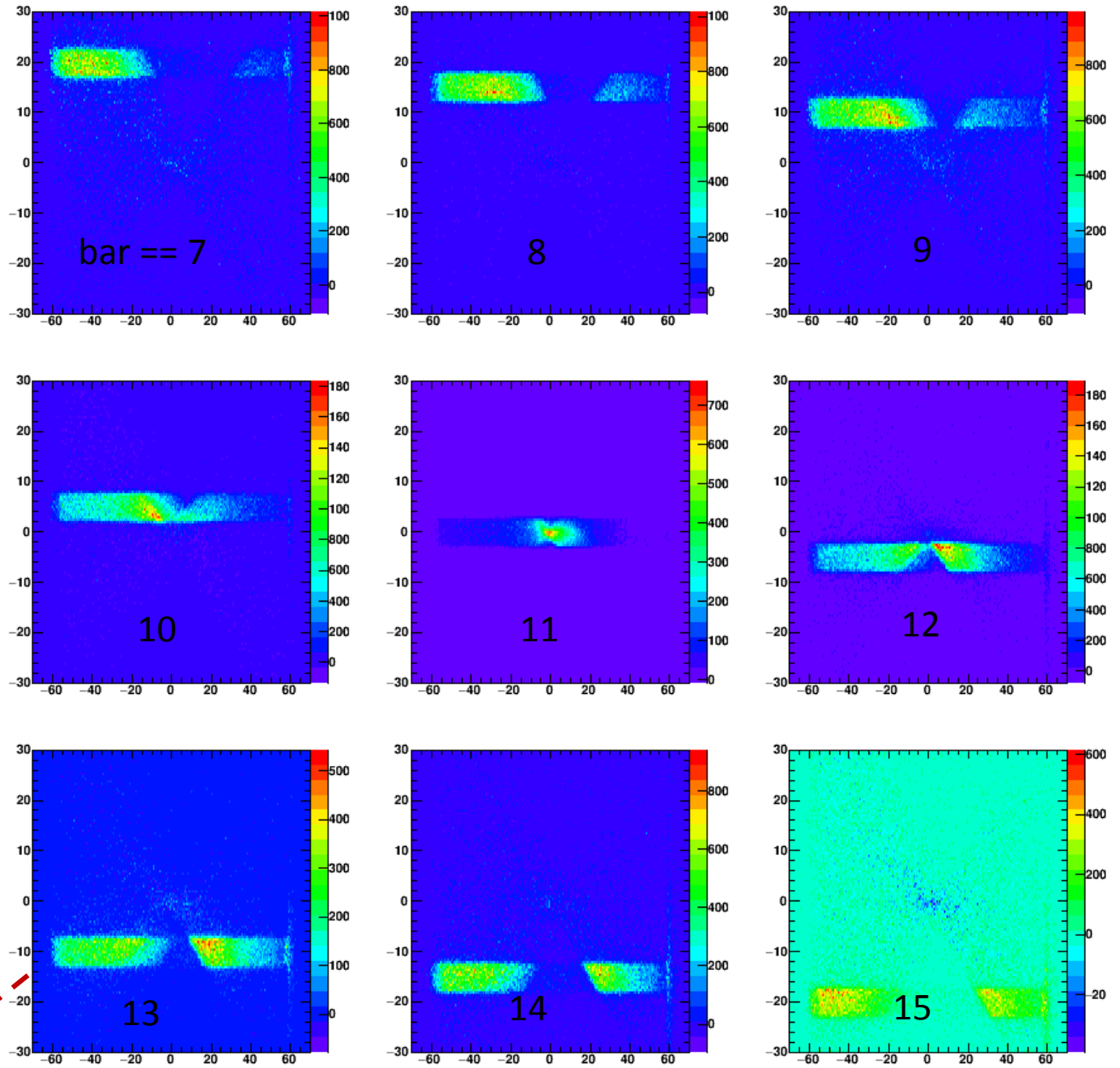


SHMS Quartz Plane: Analysis of Beam Data (Spring 17)
Preliminary-v0 March 16 1017



For the PulseInt plots that follow, cuts on y are used to select each bar



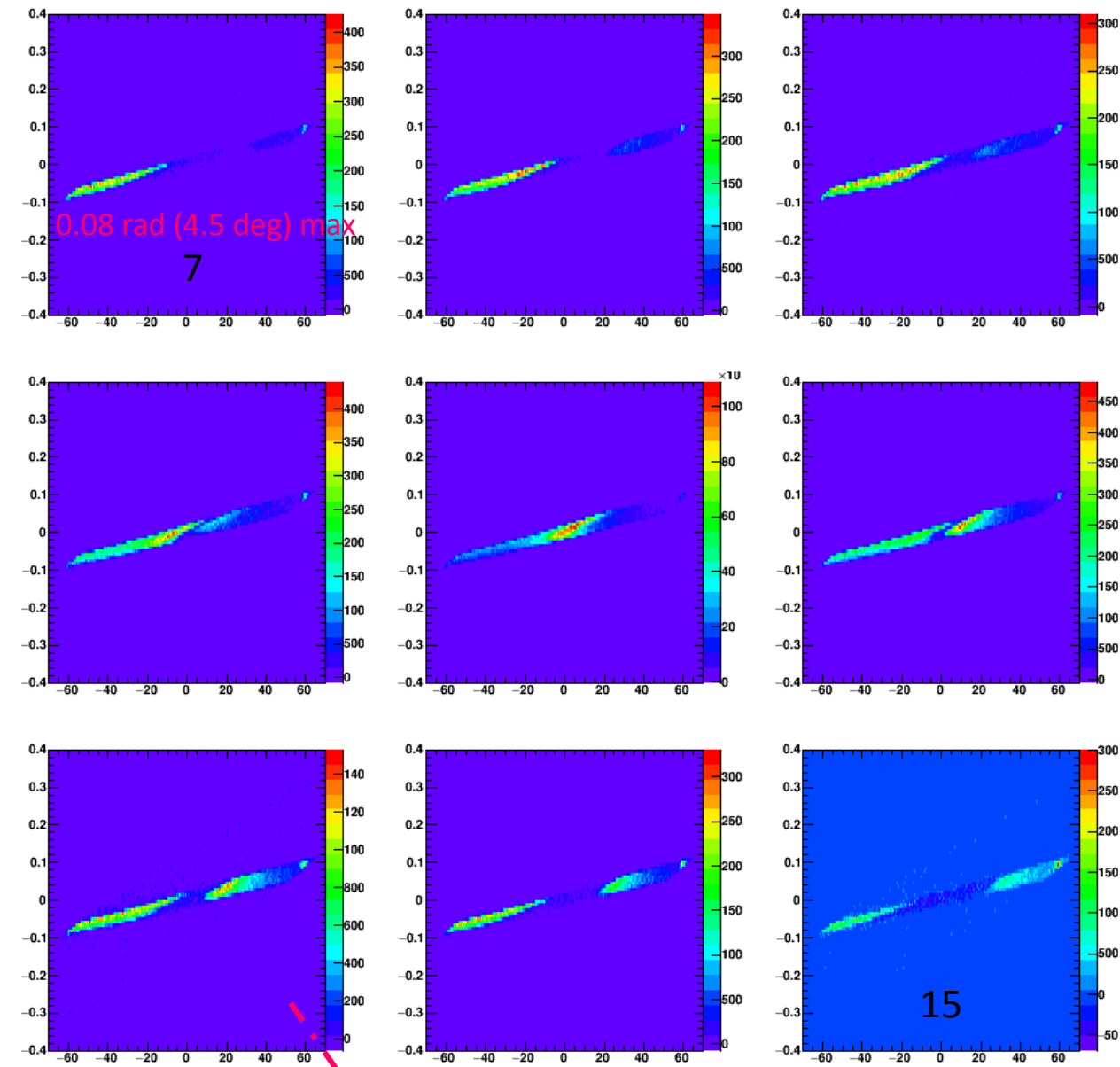
P.dc.y at z_pos of Quartz Plane = $yis = track_y[0] + track_yp[0] * 276.35$

P.dc.x at z_pos of Quartz Plane = $xis = track_x[0] + track_xp[0] * 276.35$

Histogram for bar 13: `histo->Fill(xis,yis,NegPulseInt)`

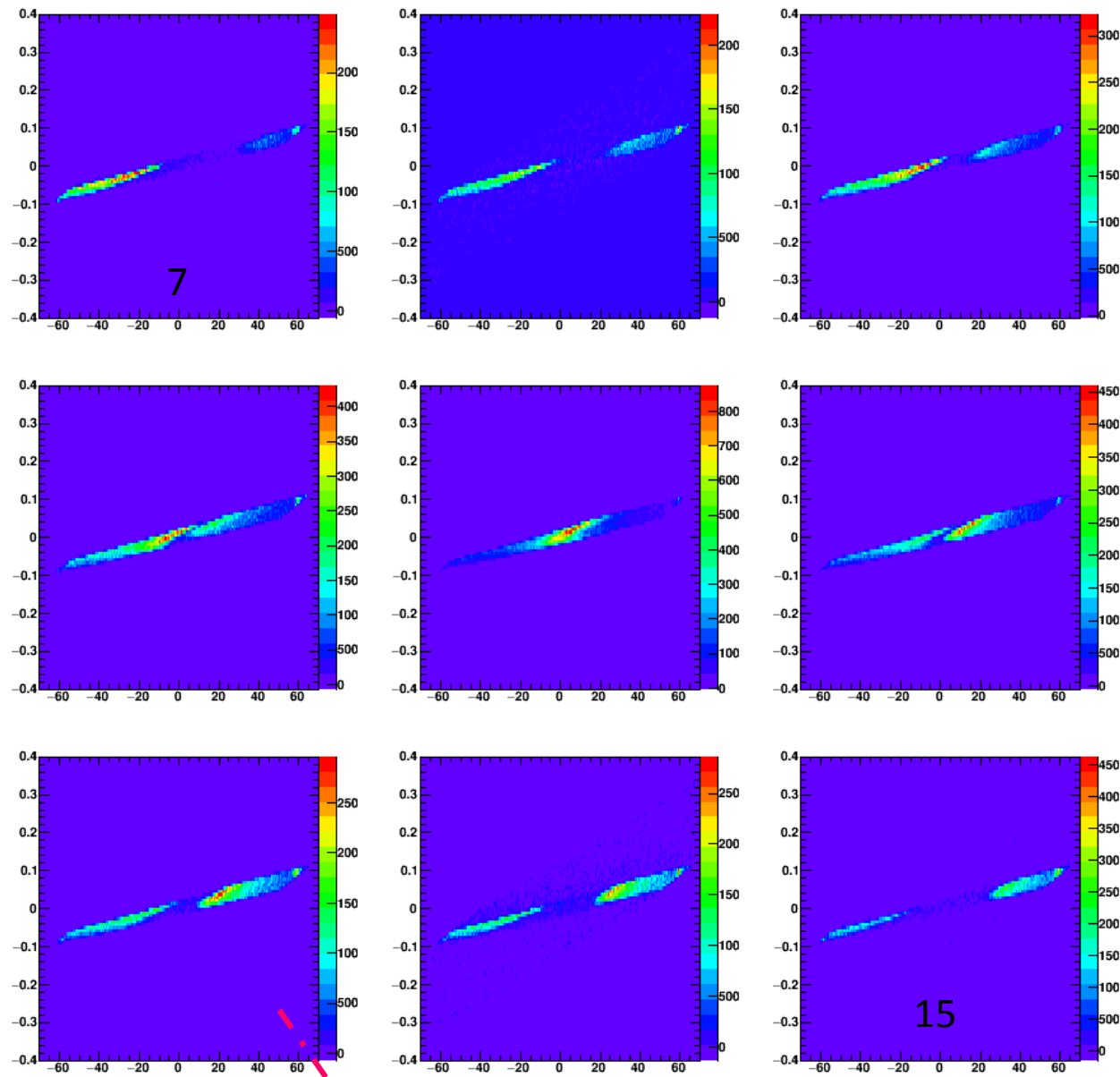
P.dc.x at z_pos of Quartz Plane

P.dc.xp vs (P.dc.x at z_pos = 276.25) as seen by **Neg PMTs**



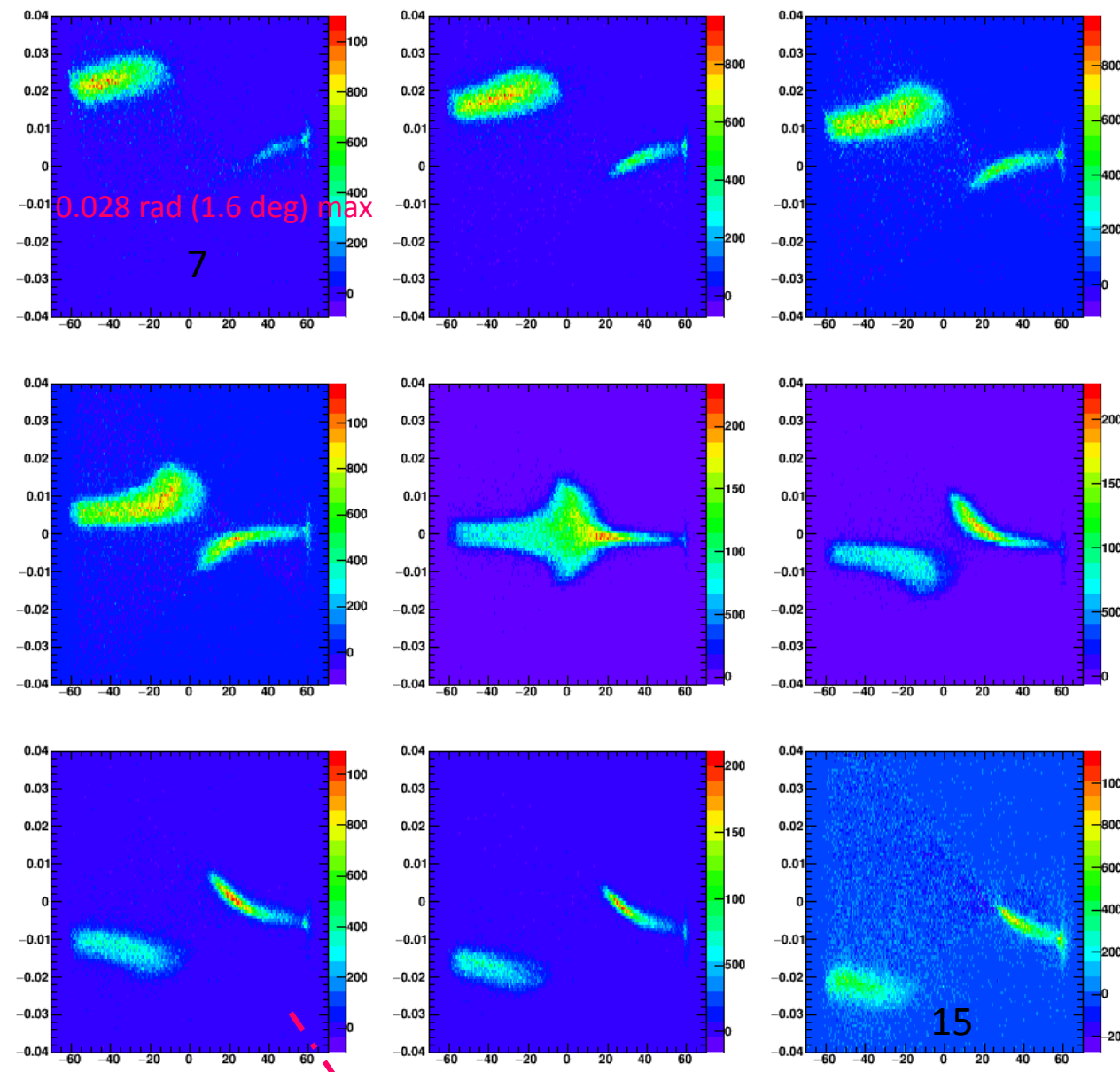
Histogram for bar 13: `histo->Fill(xis,track_xp[0],NegPulseInt)`

P.dc.xp vs (P.dc.x at z_pos = 276.25) as seen by **Pos PMTs**



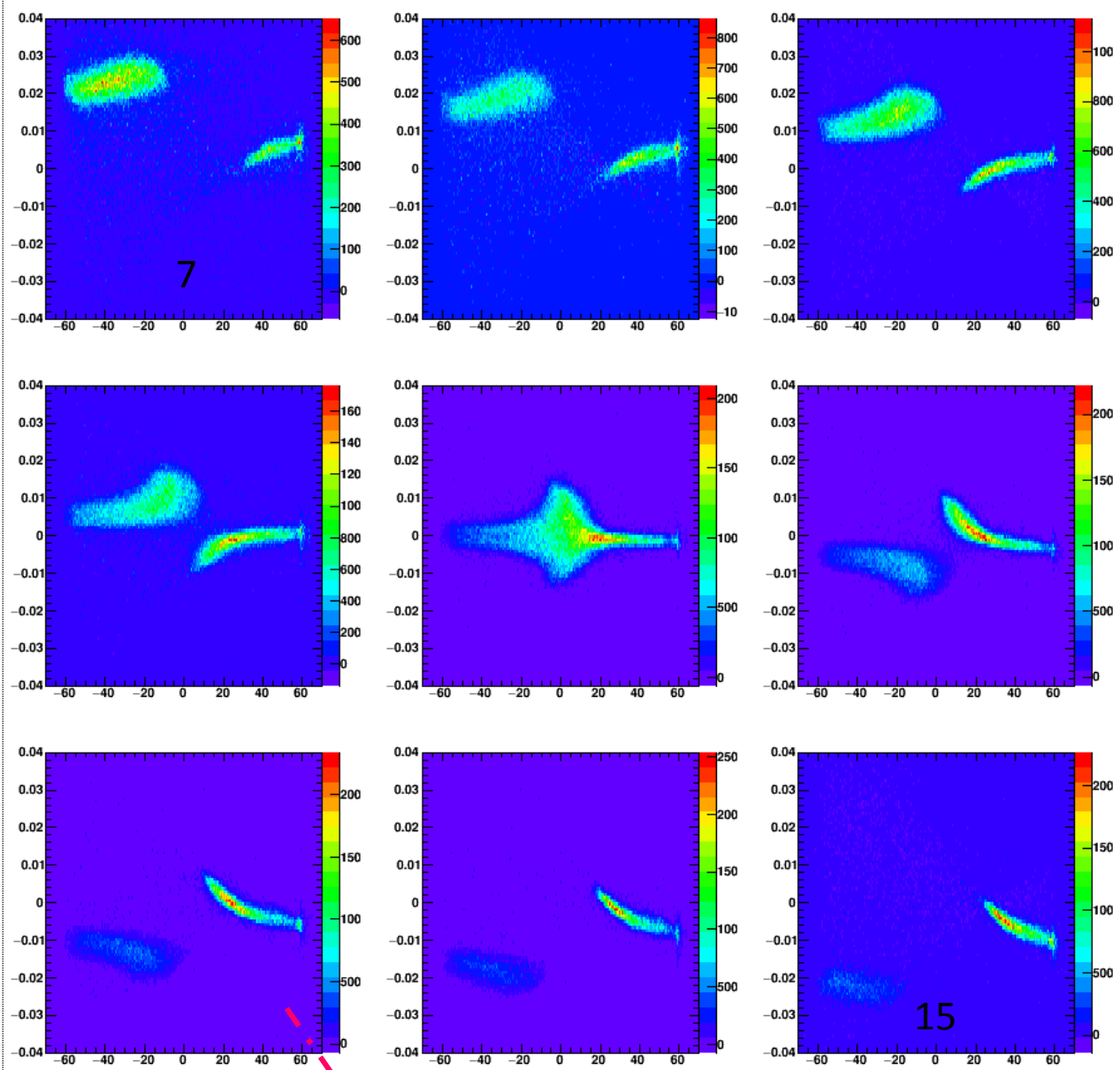
Histogram for bar 13: `histo->Fill(xis,track_xp[0],PosPulseInt)`

P.dc.**yp** vs (P.dc.**x** at z_pos = 276.25) as seen by **Neg PMTs**



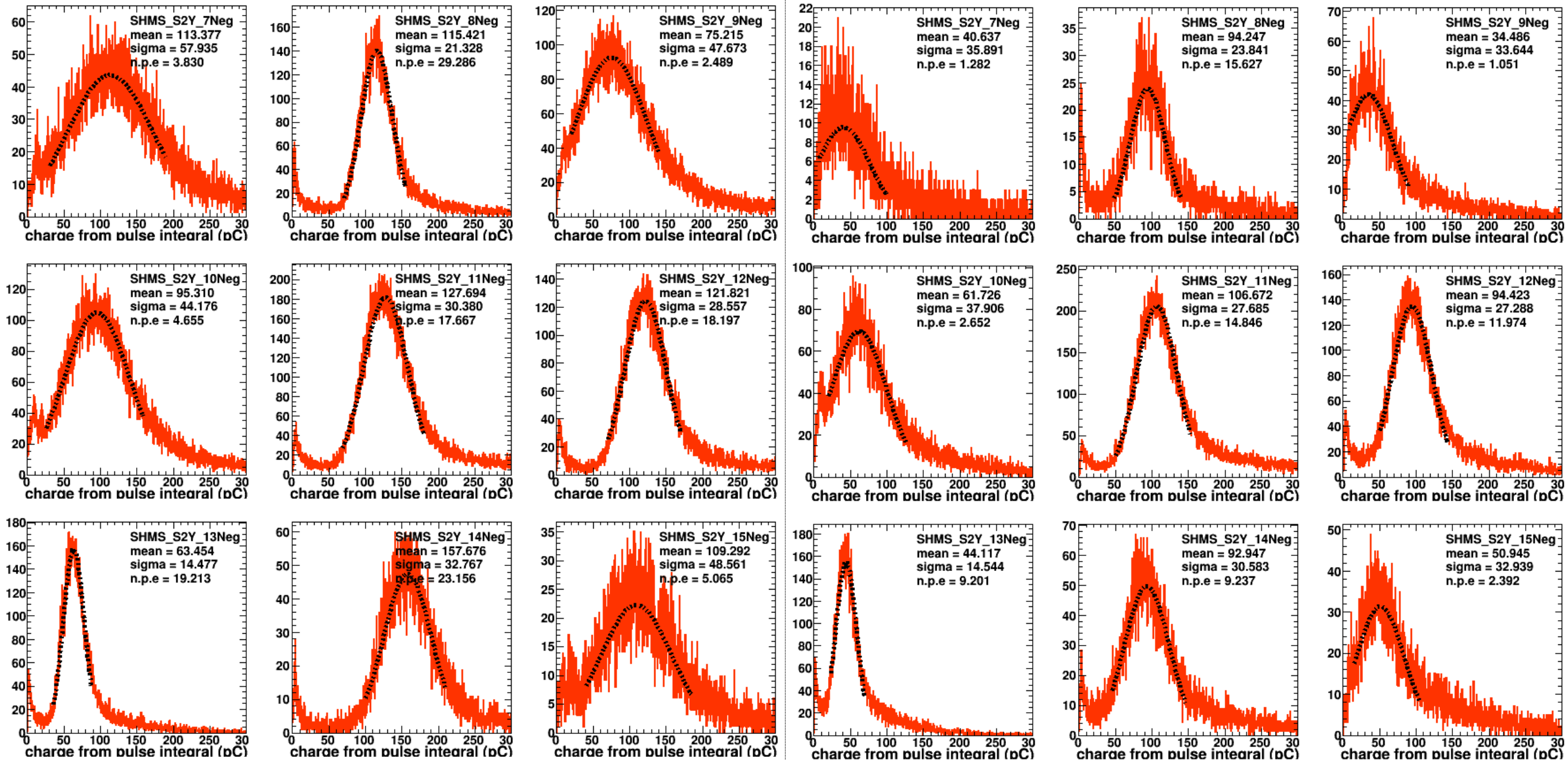
Histogram for bar 13: `histo->Fill(xis,track_yp[0],NegPulseInt)`

P.dc.**yp** vs (P.dc.**x** at z_pos = 276.25) as seen by **Pos PMTs**



Histogram for bar 13: `histo->Fill(xis,track_yp[0],PosPulseInt)`

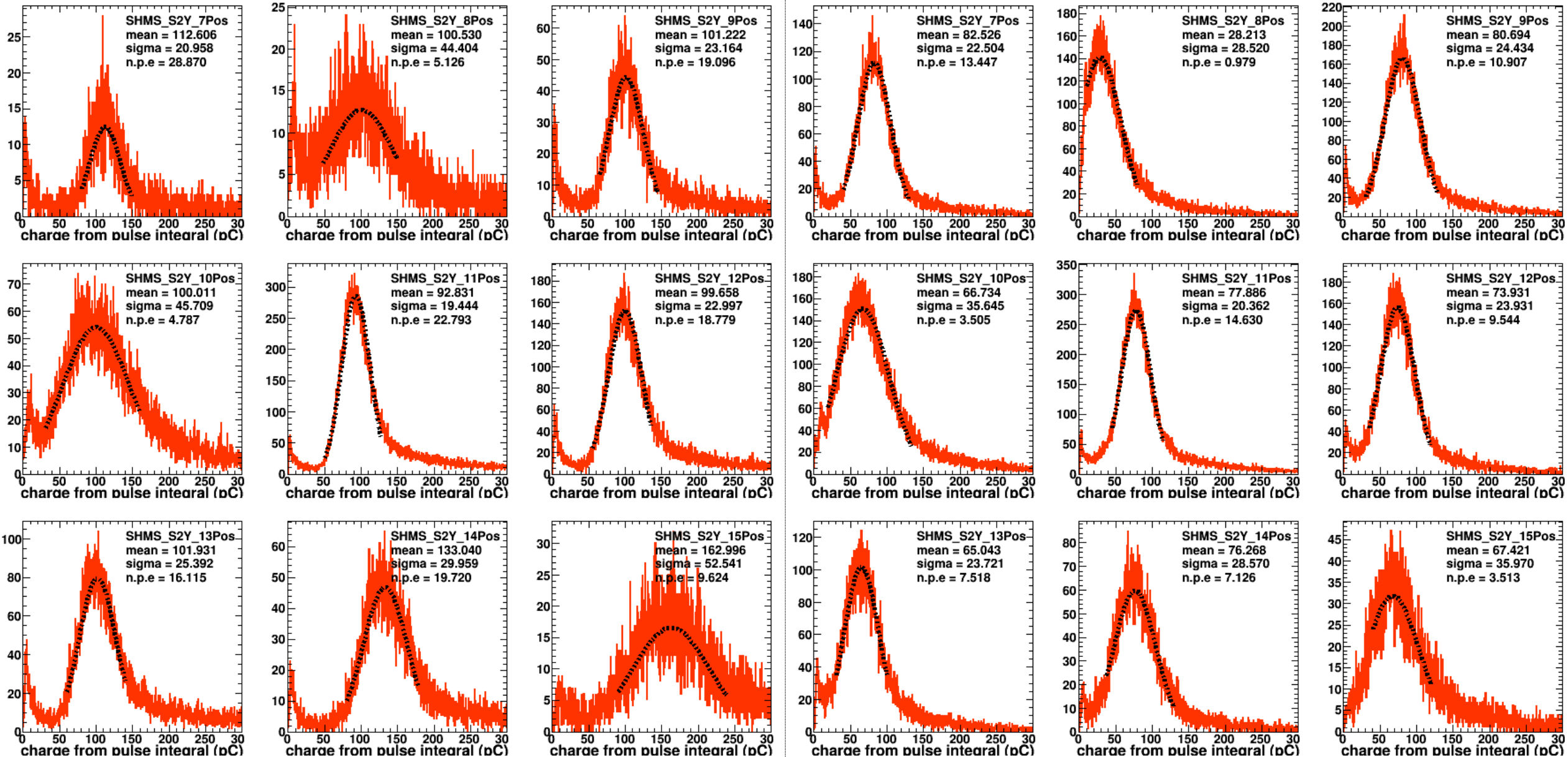
Response (Pulse Integral) from Negative PMTs (Top PMTs)



Angle of incidence (in xz plane mostly) favors more photons on Negative (Top) PMTs when $x < 0$

Angle of incidence (in xz plane mostly) favors less photons on Negative (Top) PMTs when $x > 0$

Response (Pulse Integral) from Positive PMTs (Bottom PMTs)



Angle of incidence (in xz plane mostly) favors more photons on Positive (Bottom) PMTs when $x > 0$

Angle of incidence (in xz plane mostly) favors less photons on Positive (Bottom) PMTs when $x < 0$