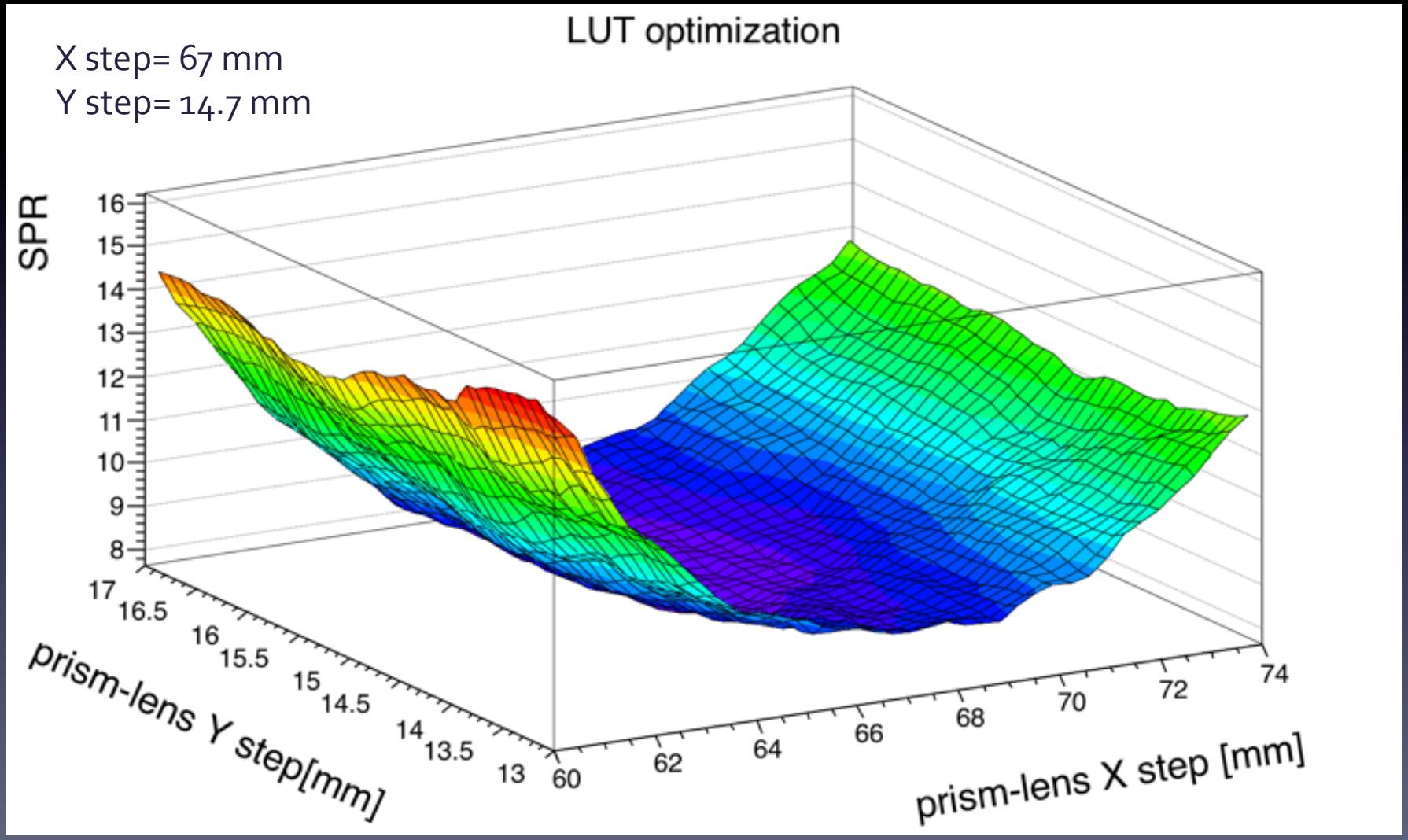
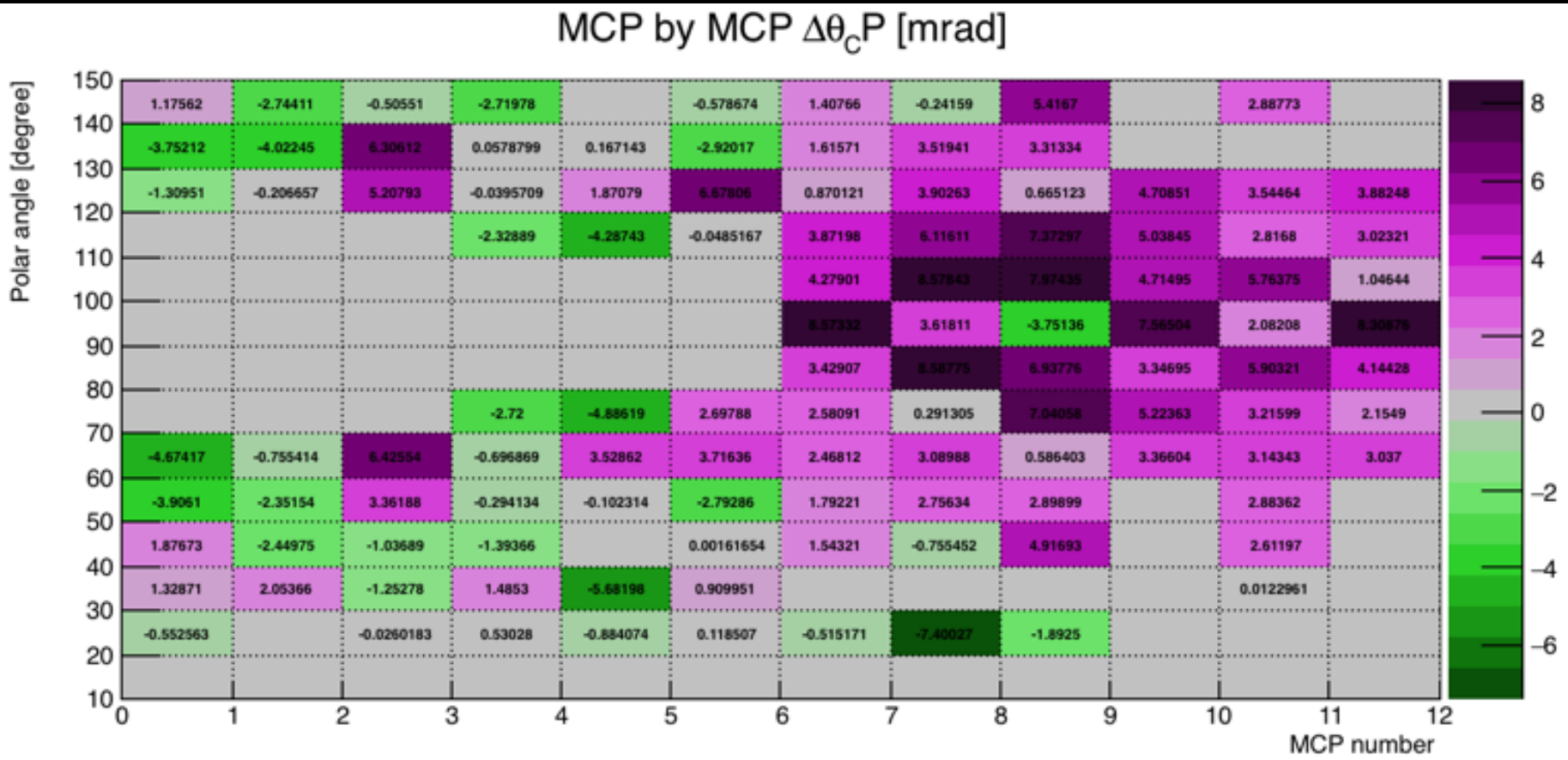
MCP by MCP $\Delta\theta_c$ Correction, Beam $\Delta\theta$ $\Delta\Phi$ & LUT Prism-lens X & Y optimization

A.A

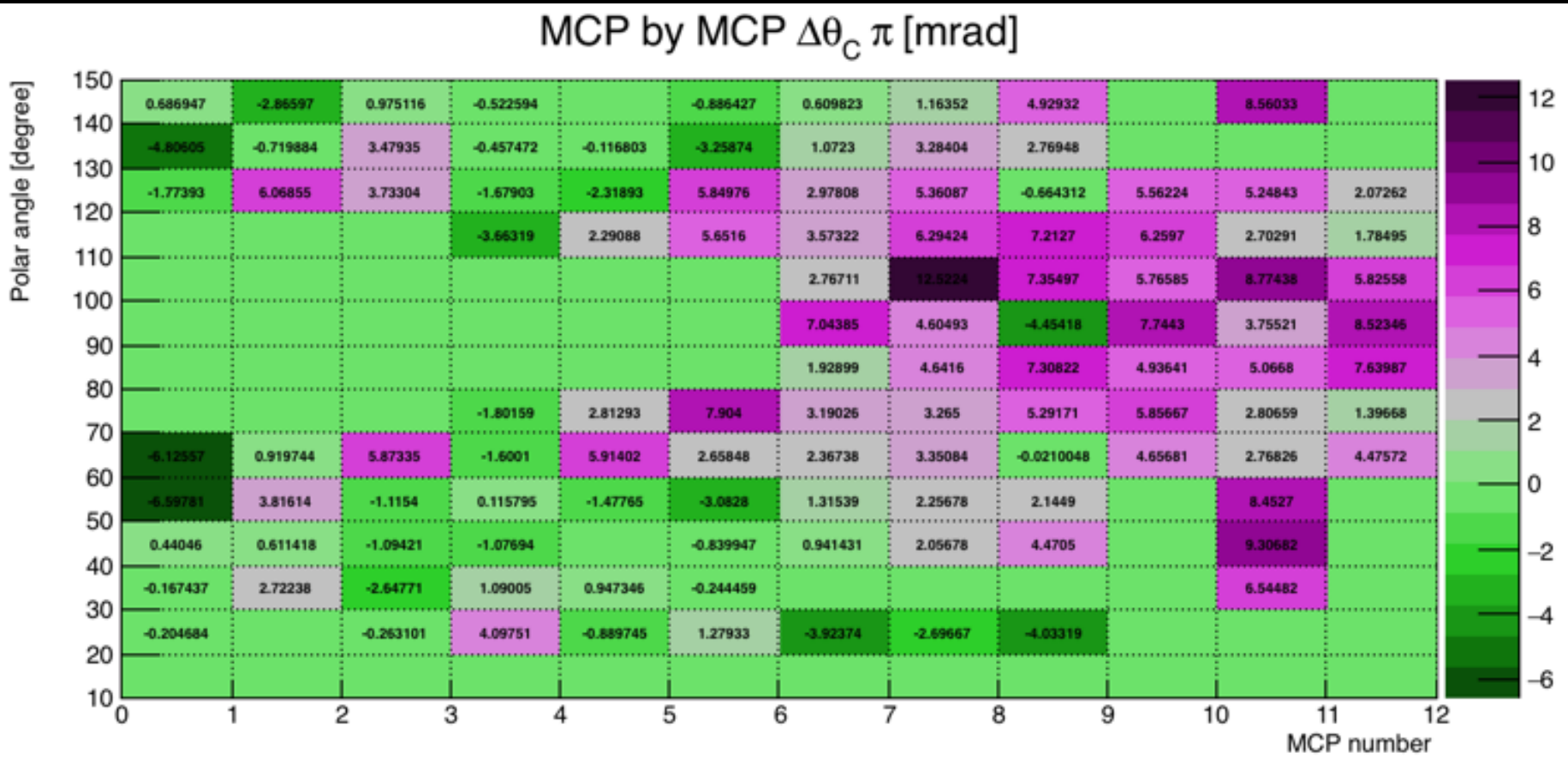
LUT Prism-lens X & Y optimization



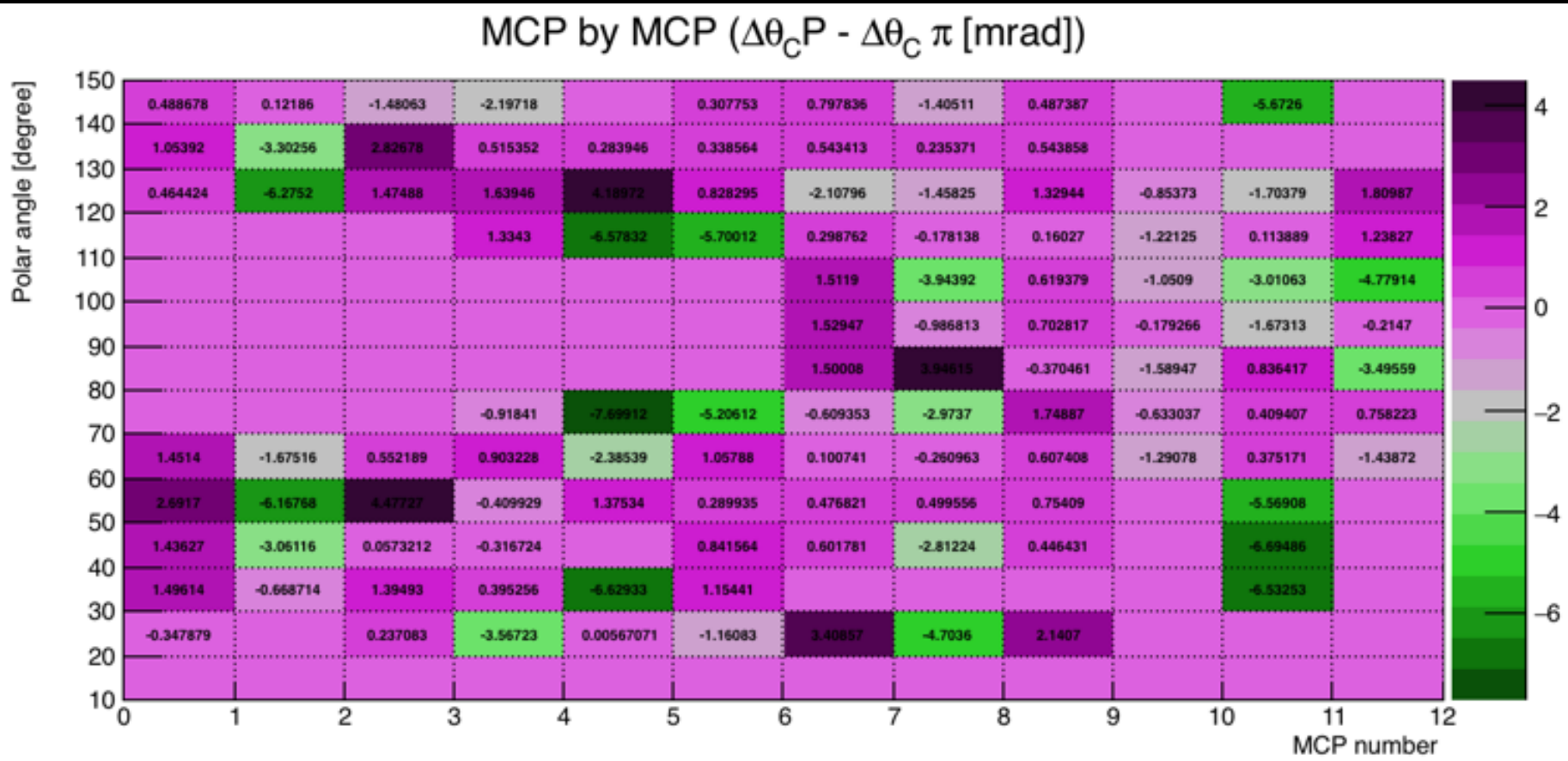
P $\Delta\theta_c$ correction



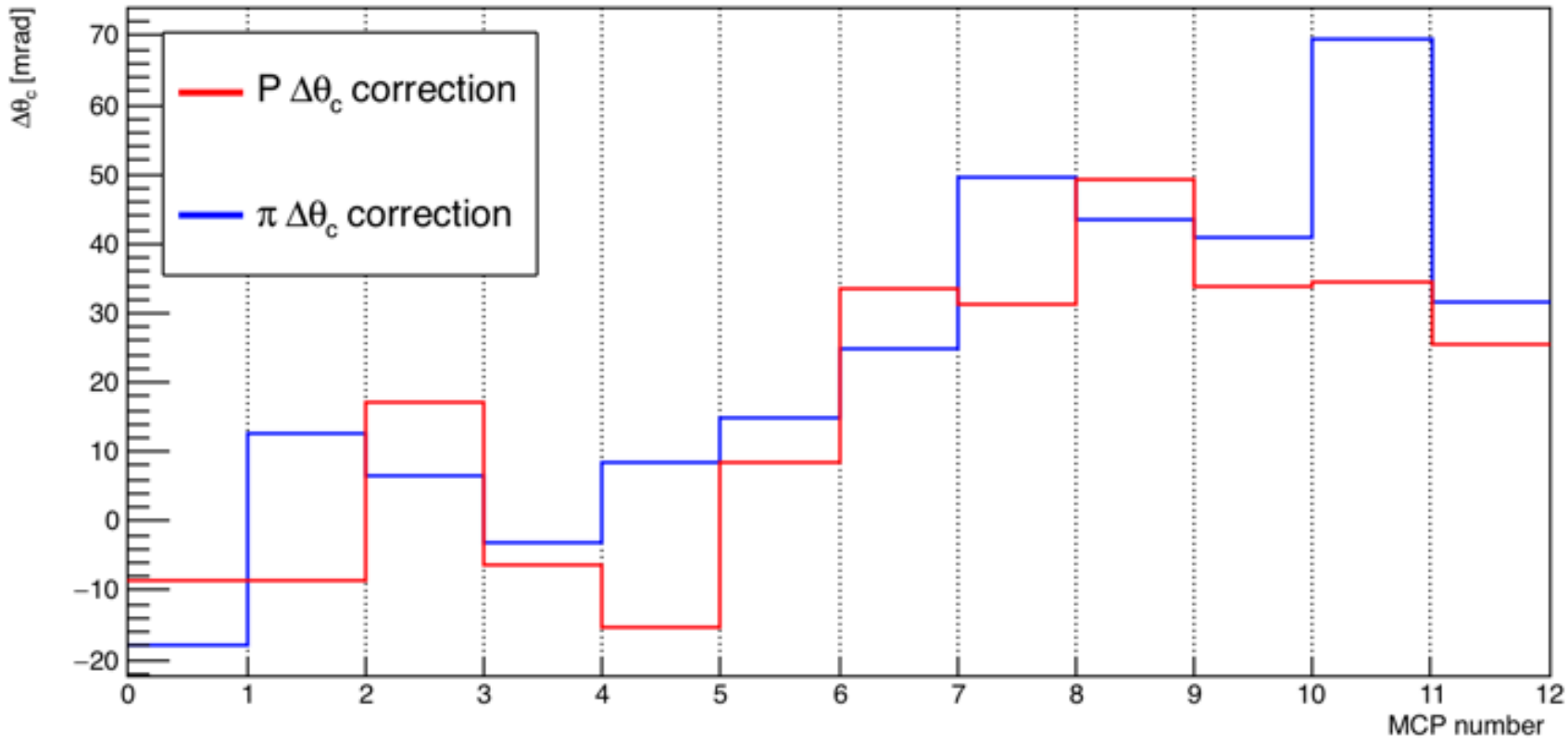
π $\Delta\theta_c$ correction



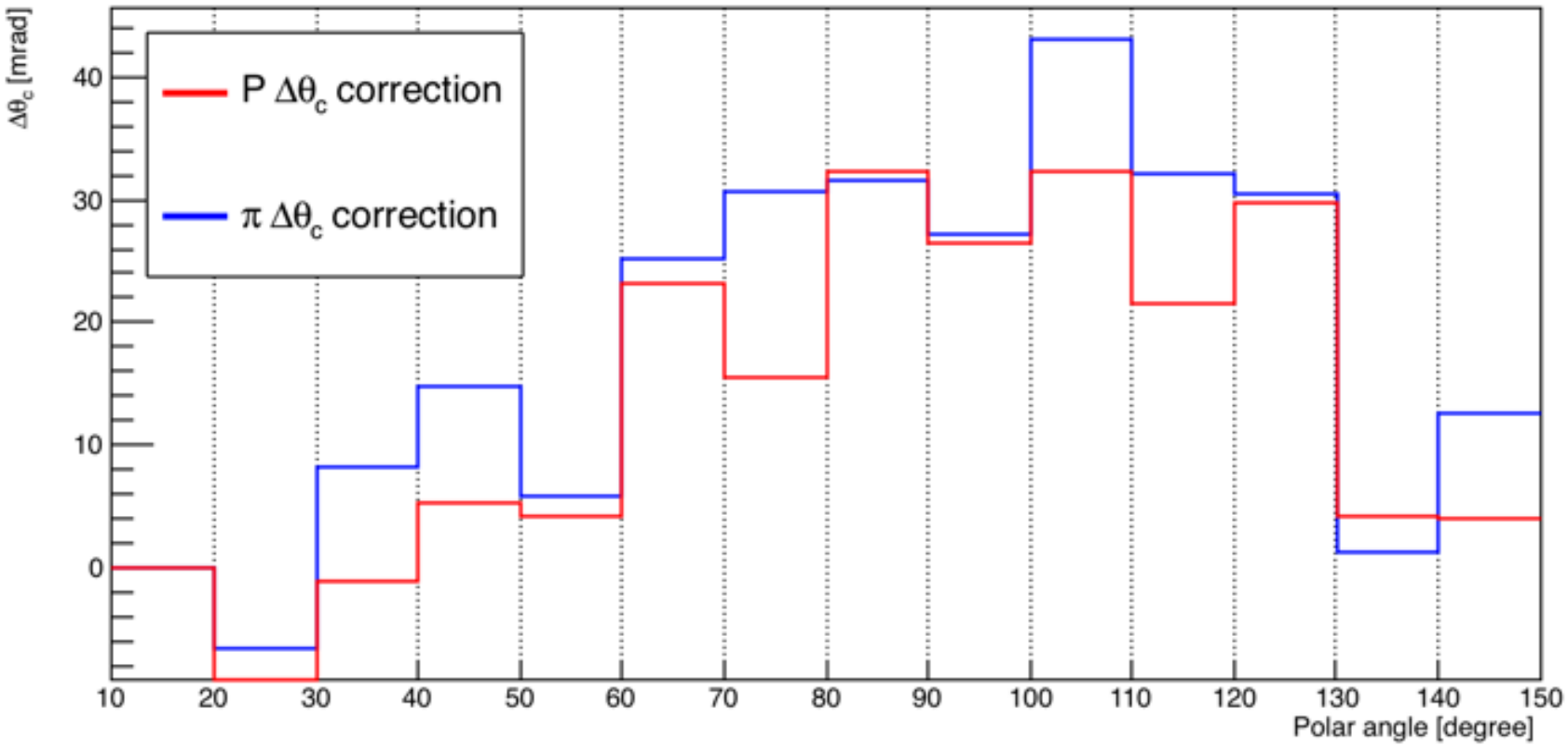
P $\Delta\theta_{c\ correction}$ - π $\Delta\theta_{c\ correction}$



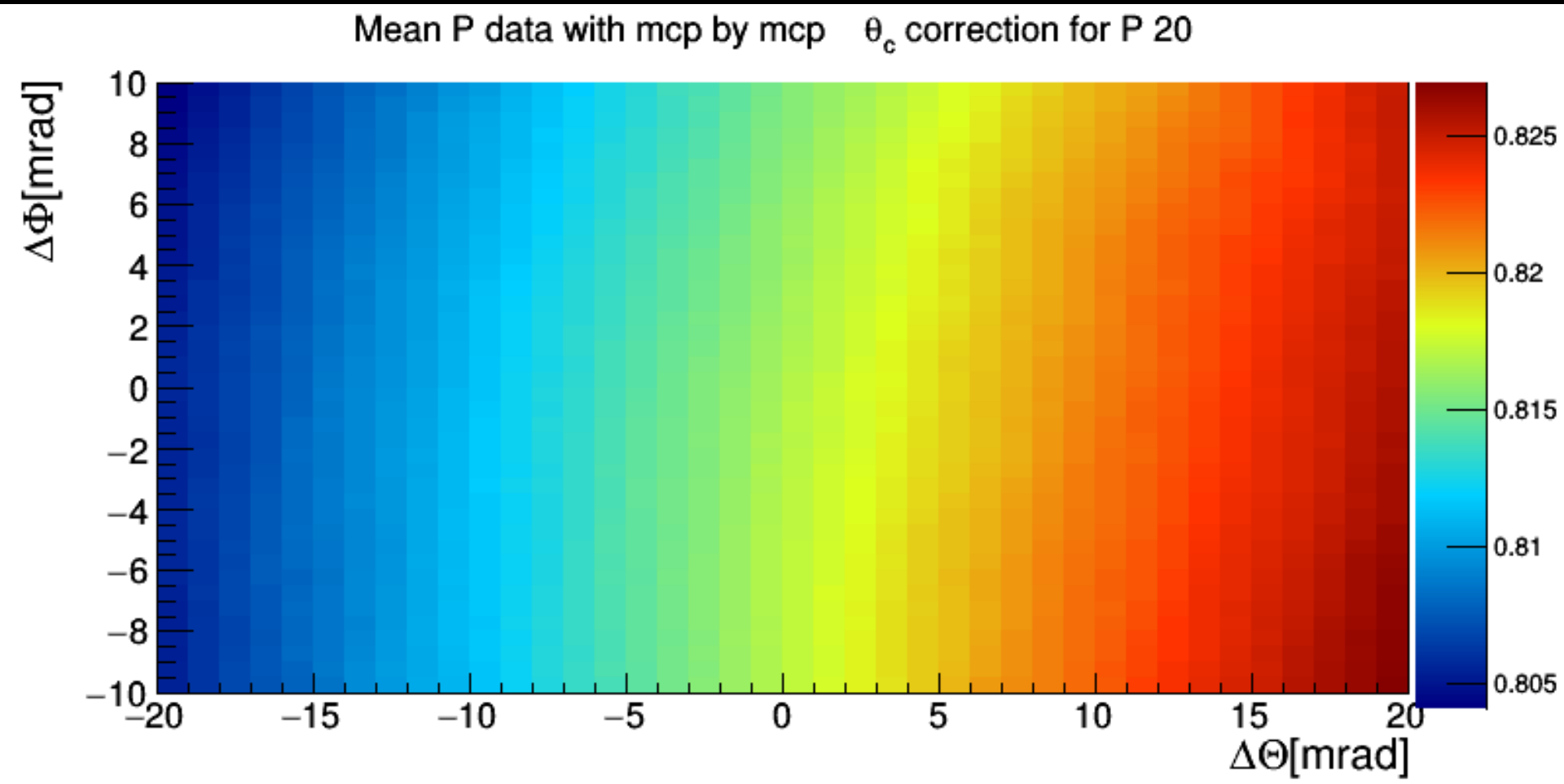
MCP projection (all angles)



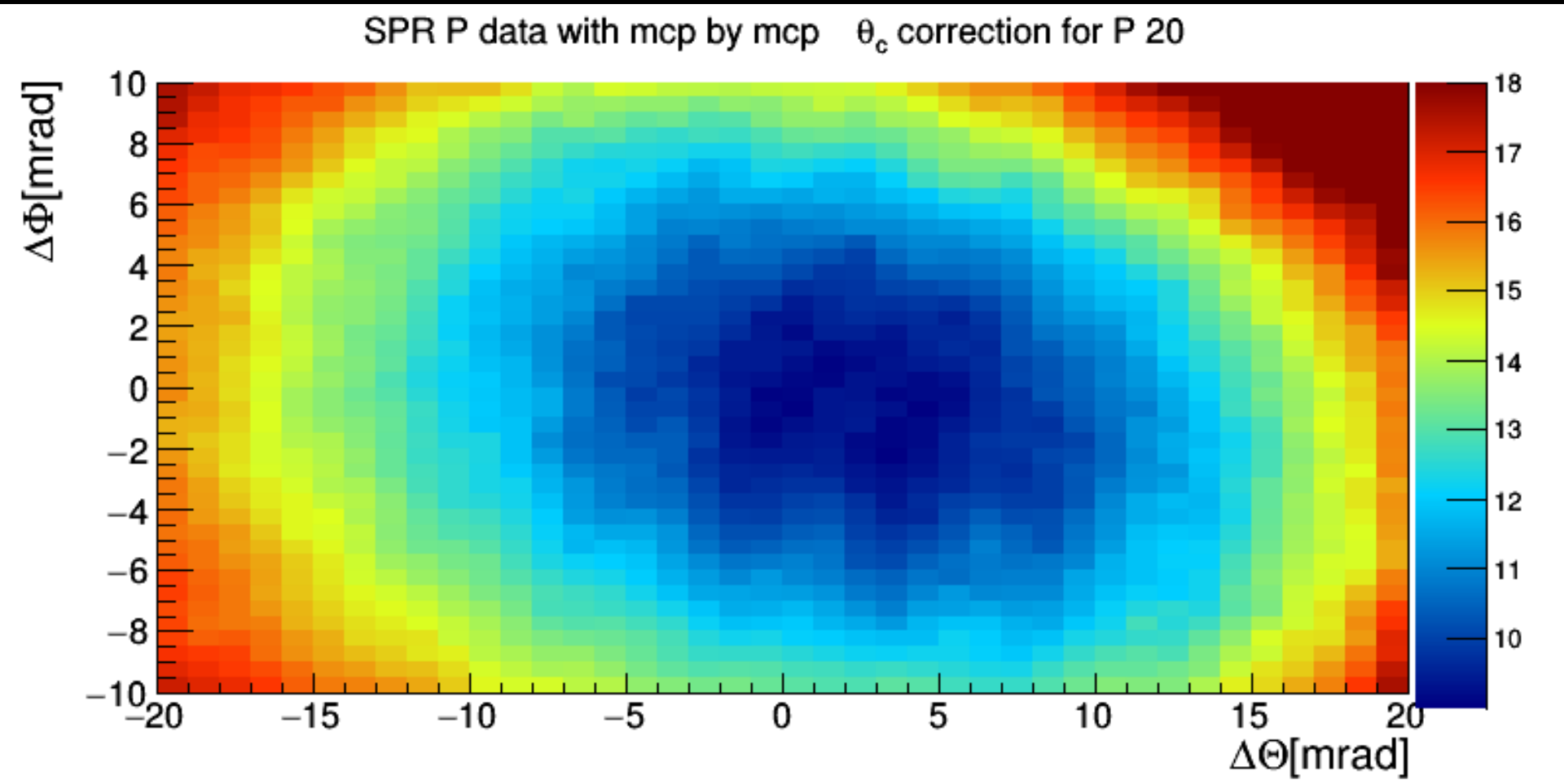
Polar angle projection (all PMT's)



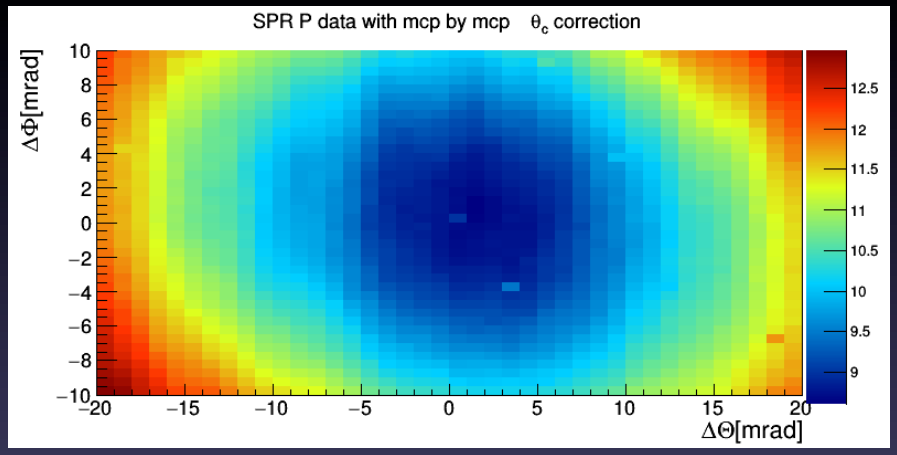
θ_c Mean Value

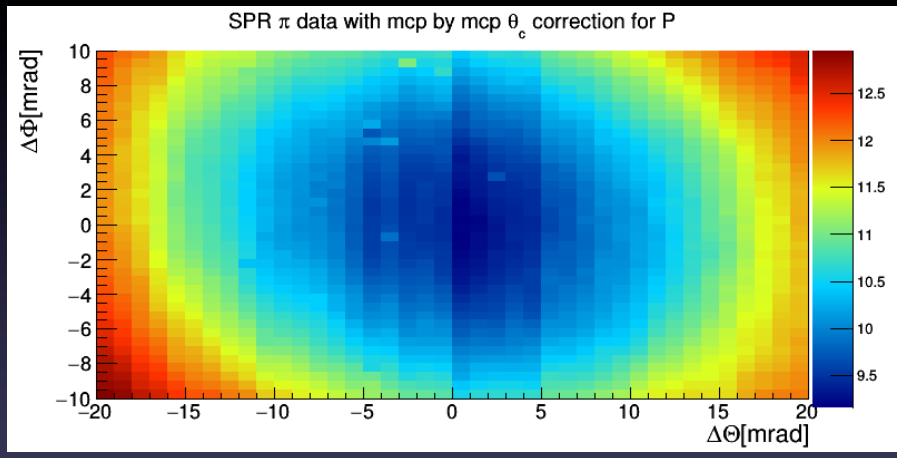


θc SPR


SPR P data with mcp by mcp θc correction for P 20
ΔΦ[mrad]
ΔΘ[mrad]
10
8
6
4
2
0
−2
−4
−6
−8
−10
−20
−15
−10
−5
0
5
10
15
20
18
17
16
15
14
13
12
11
10

θc SPR all angles





Conclusion & Outlook

- No significant difference between:

P $\Delta\theta_{c\ correction}$ and $\pi\ \Delta\theta_{c\ correction}$

Next Steps:

- Apply $\Delta\theta_{c\ correction}$ and Beam $\Delta\theta\ \Delta\phi_{correction}$
- Calculate the figure of merits
- Create geometrical reconstruction PDF and calculate π/K separation power