

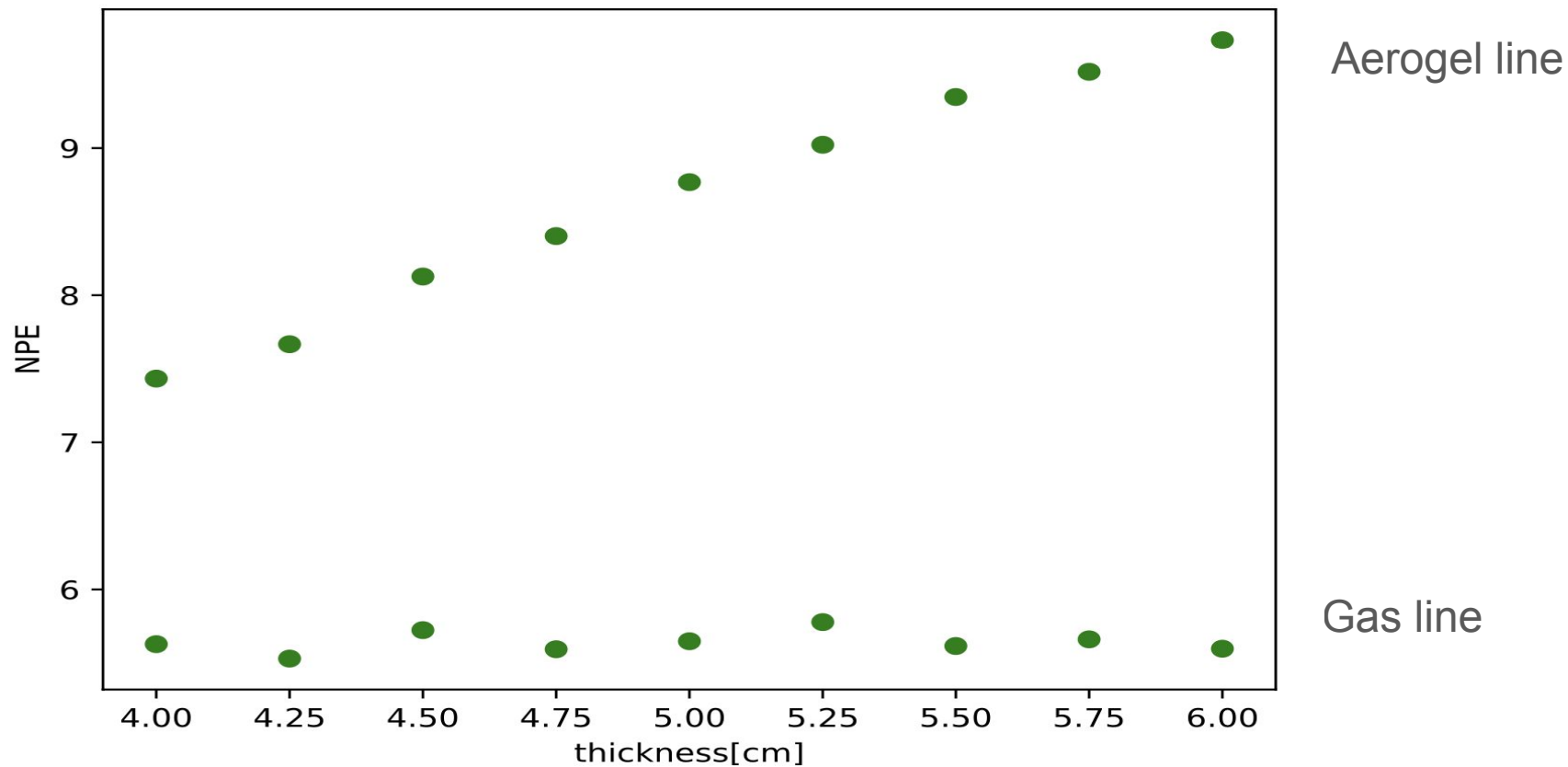
# Study on the thickness of the Aerogel radiator

# What we did

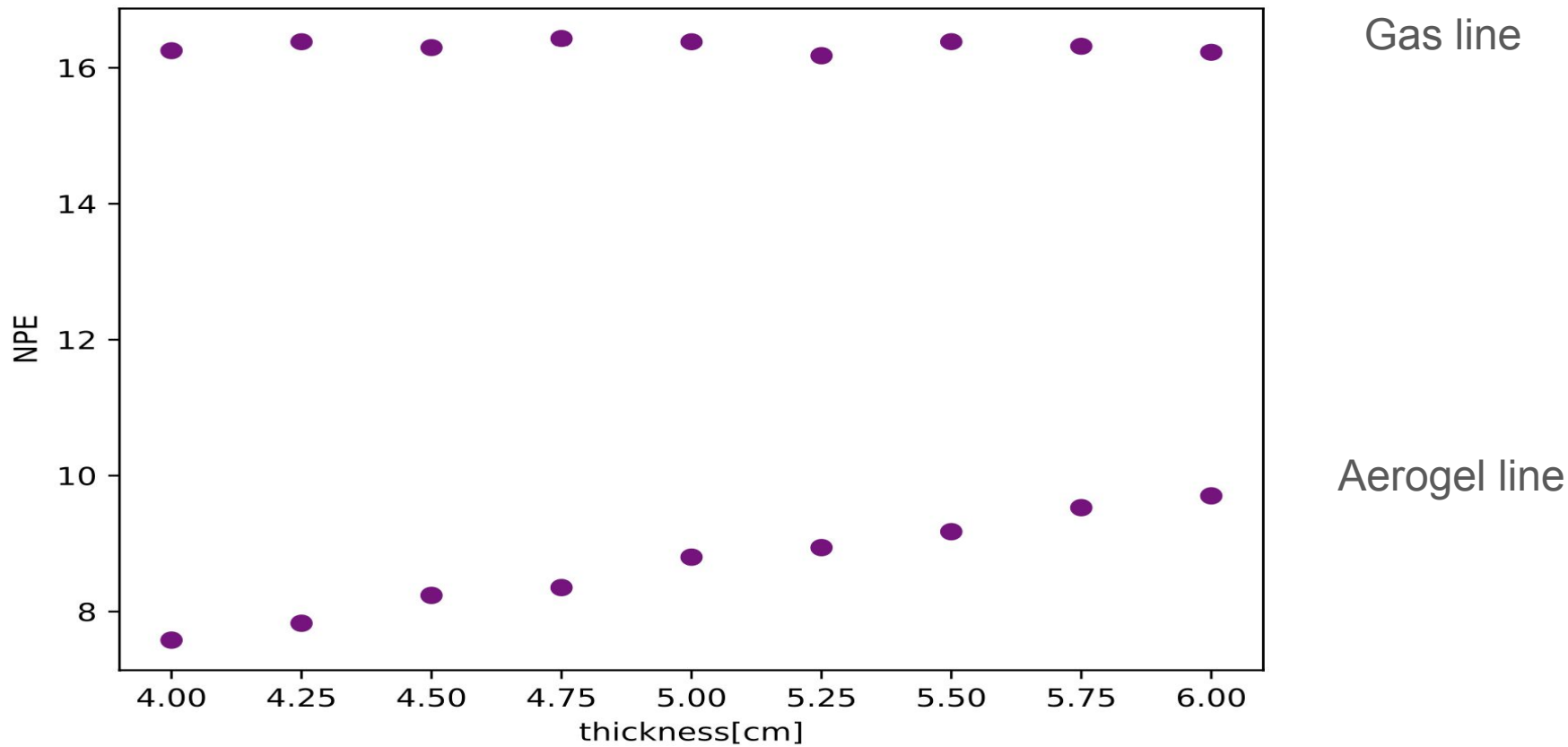
We change the thickness of the Aerogel Radiator and studied the effects

- Single particle event
- Fixed momentum  $p=15\text{GeV}$
- Particles launched: Kaon+ and Pion+
- Fixed pseudorapidity  $\eta=2.5$

# NPE in Gas and Aerogel for kaons+, $p=15\text{GeV}$ s

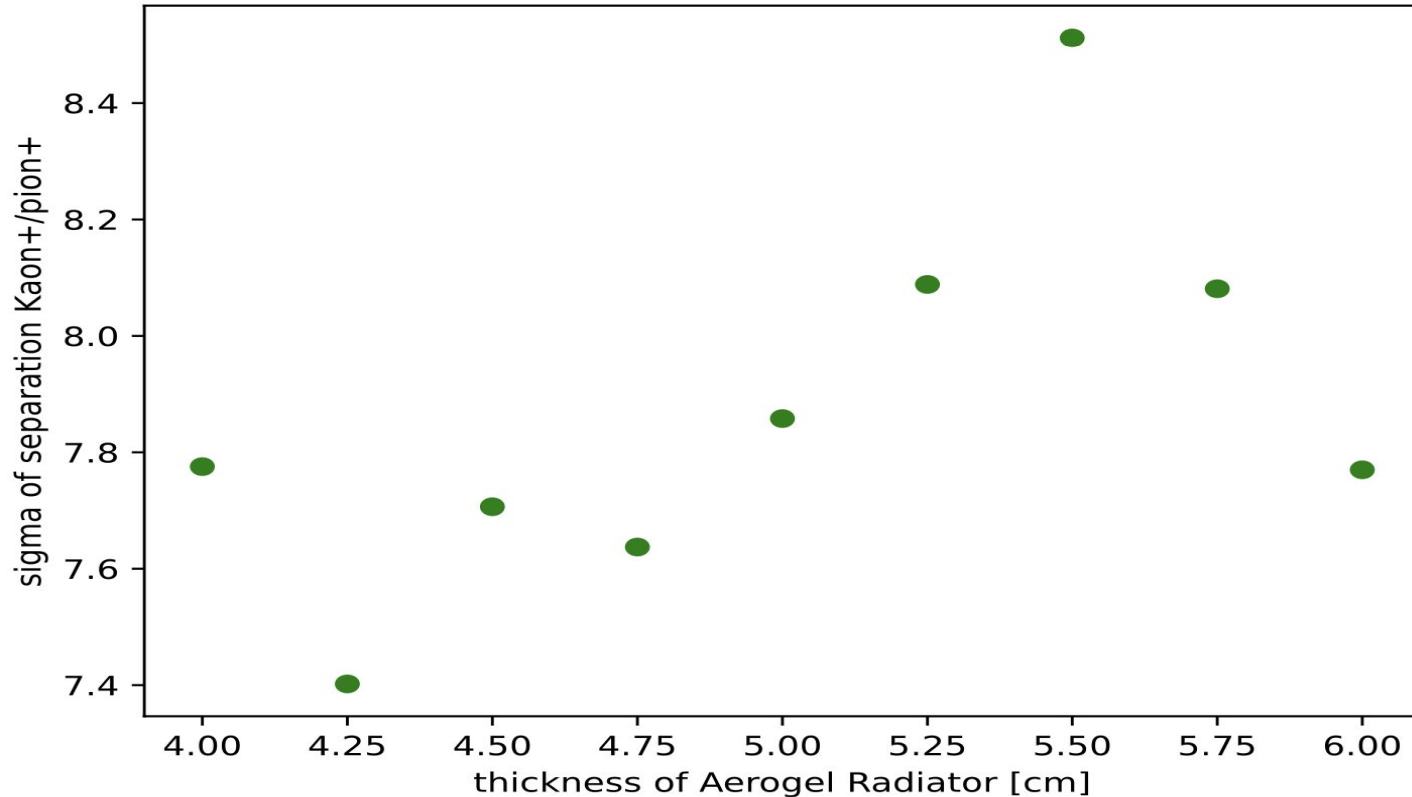


# NPE in Gas and Aerogel for pions+, $p=15\text{GeV}$ s



- more photons and more statistics in Aerogel
- constant amount in Gas

# N sigma of separation Kaon+, pion+, for Aerogel photons



peak at 5.5

# More studies on the way

other simulations are currently running

- different etas (1.5; 2.0; 2.5; 3.0; 3.5)
- different momentum (5; 10; 15; 20; 25; 30) GeVs
- same particles (kaon+, pion+)
- same thicknesses (4.0; 4.25; 4.5; 4.75; 5.0; 5.25; 5.5; 5.75; 6) cm