CiDER ML Workshop Summary

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Implementing physics in LUCiD!

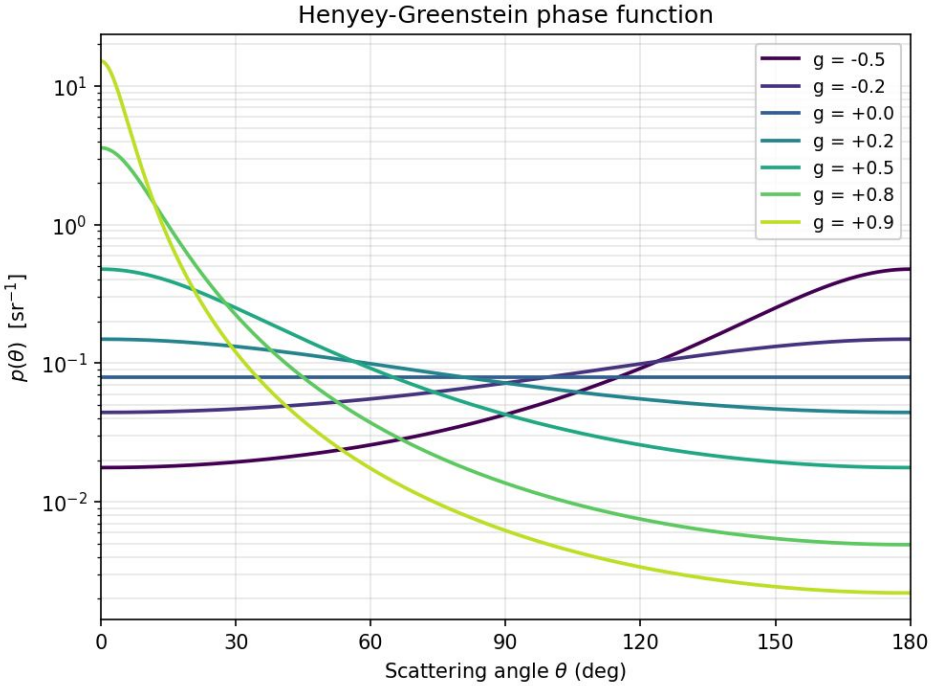
- Current implementation makes assumptions about scatter length, absorption length, QE, etc.

- Need to implement proper physics modeling for simulation

Mie Scattering Implementation

- Trying to implement g (asymmetry direction factor) as tunable parameter

$$p(\theta) = \frac{1}{4\pi} \frac{1 - g^2}{(1 + g^2 - 2g\cos\theta)^{3/2}}$$



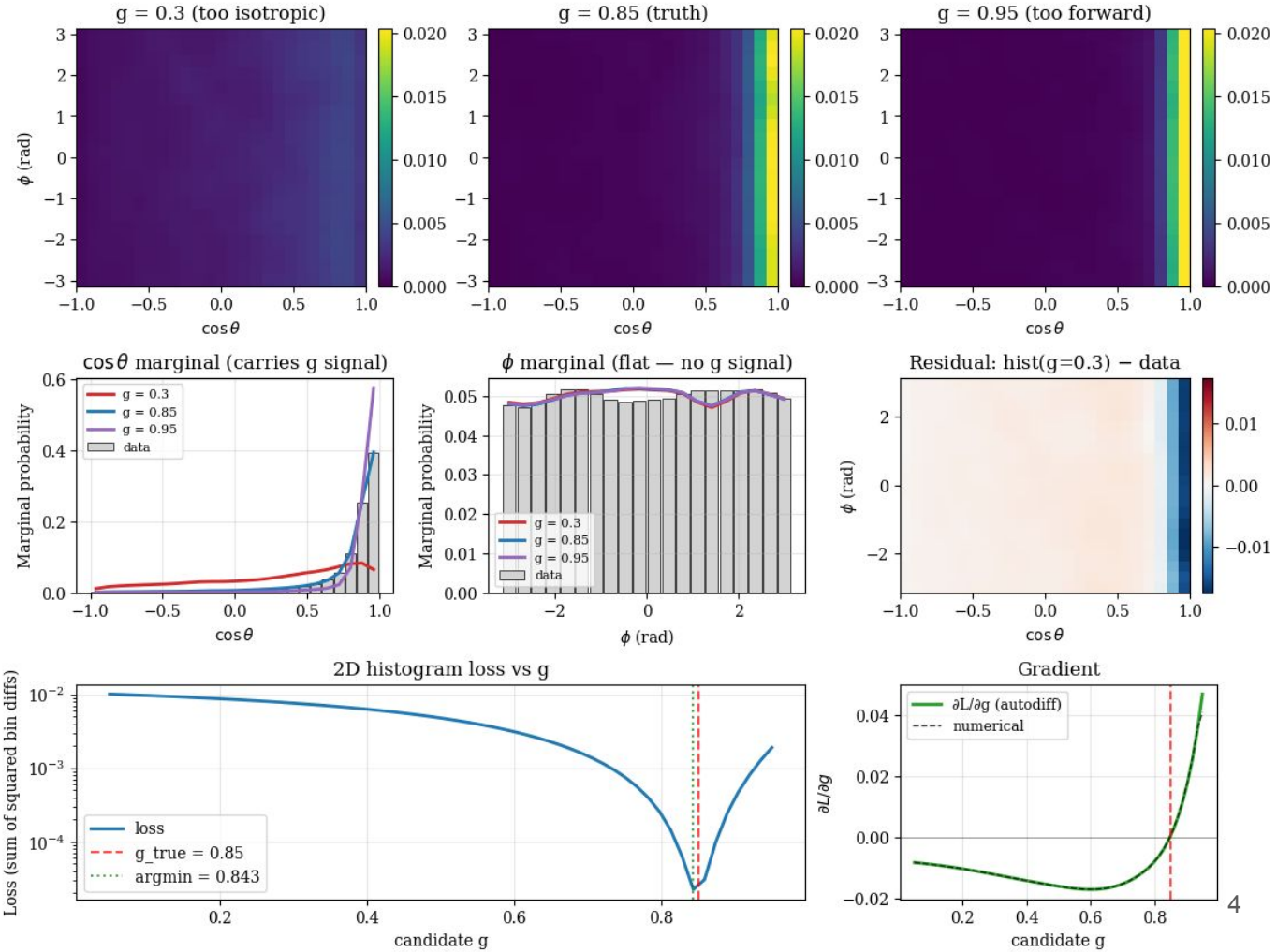
Mie Scattering Implementation

Checked if implementing 2D directional scattering affects smoothness of loss & gradient

Mie Scattering is flat in phi

Needed to check if loss and gradient is smooth

Smooth! Now need to pipe through full LUCiD pipeline



It is still messed up....trying to figure out where the problem is

Basically spending my time debugging now...