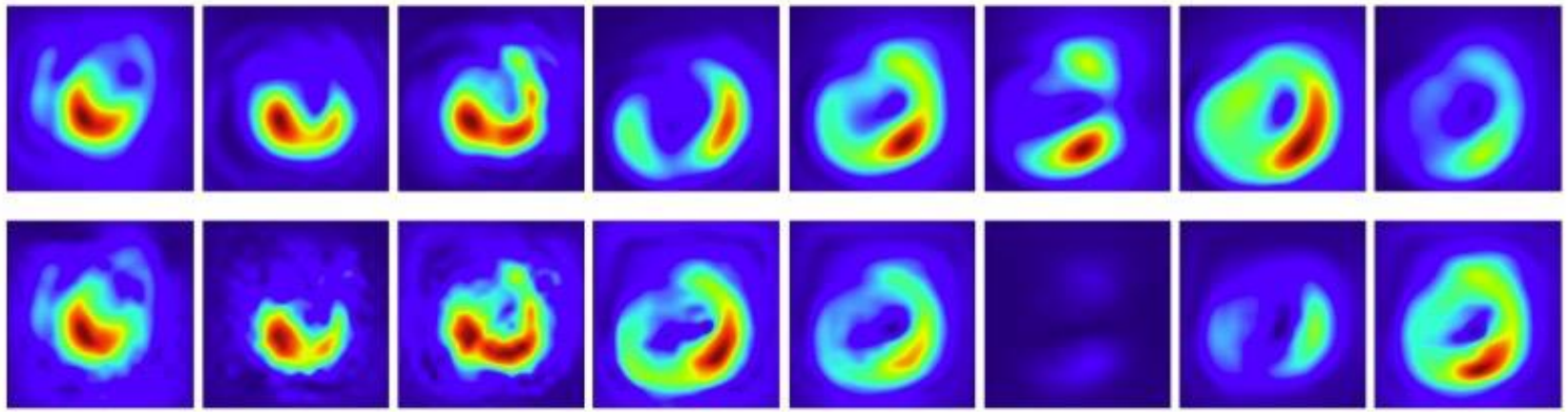
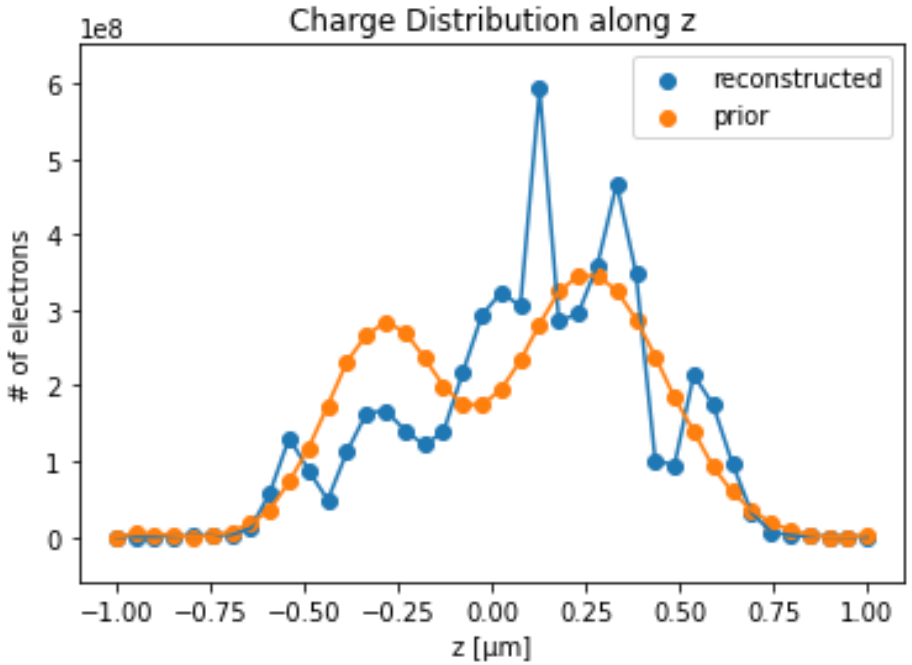
Meeting

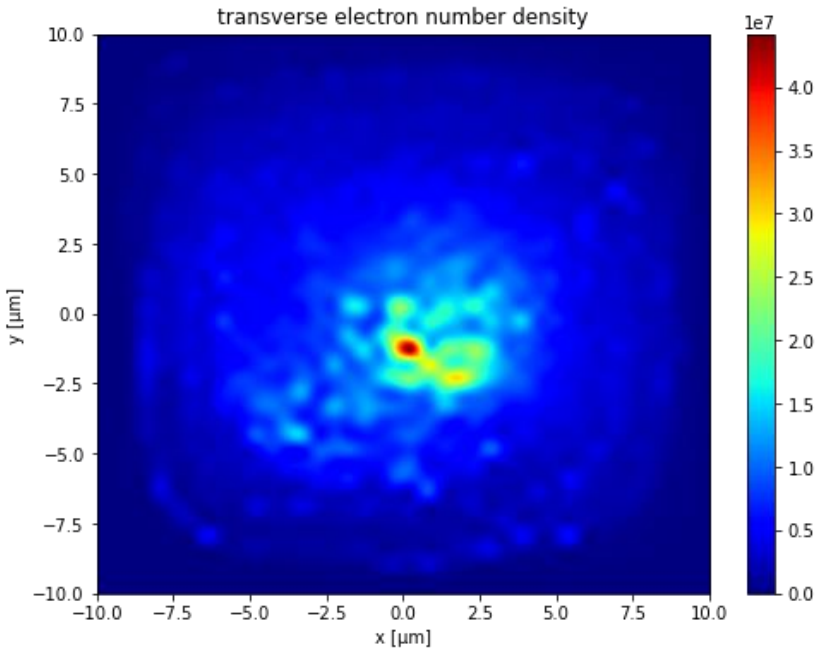
Ze Ouyang

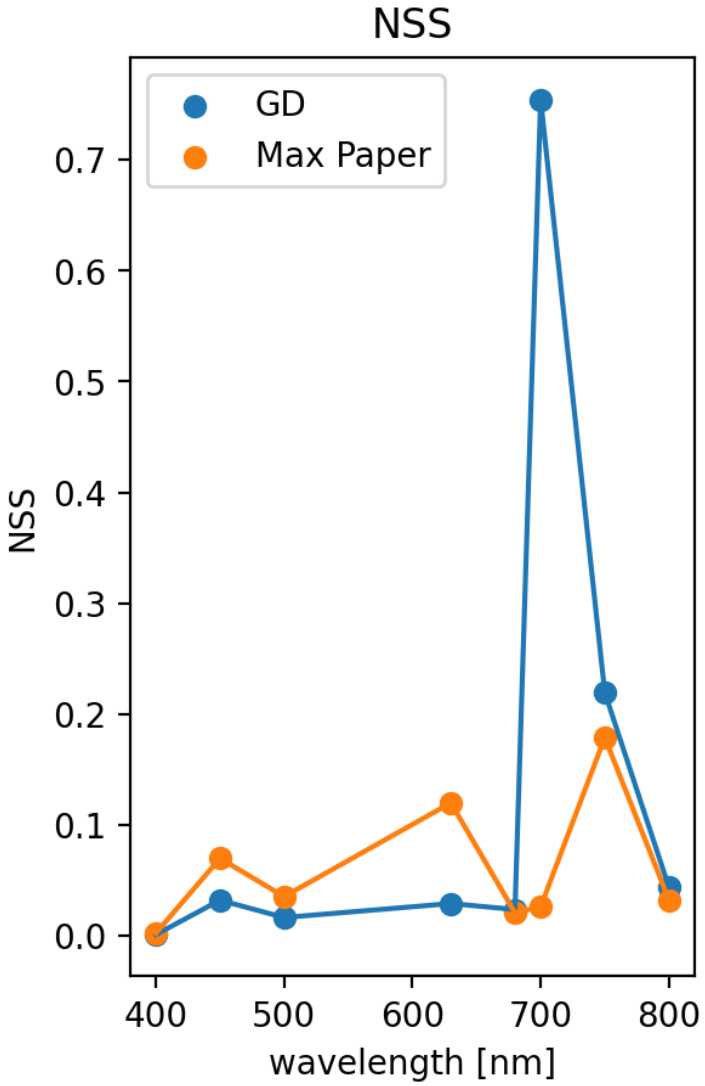
18th Feb, 2025

10 mins

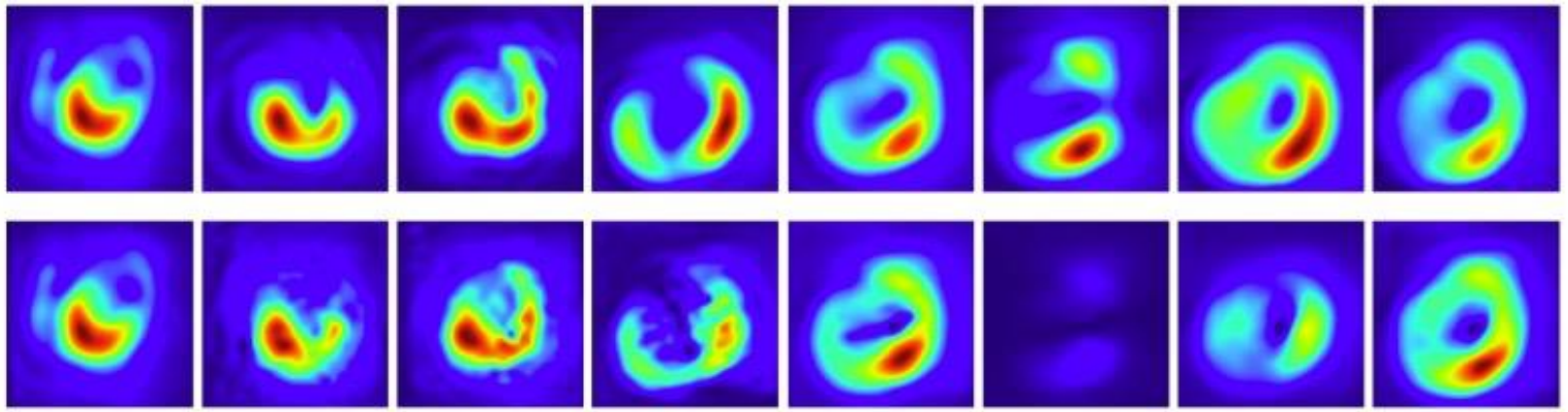


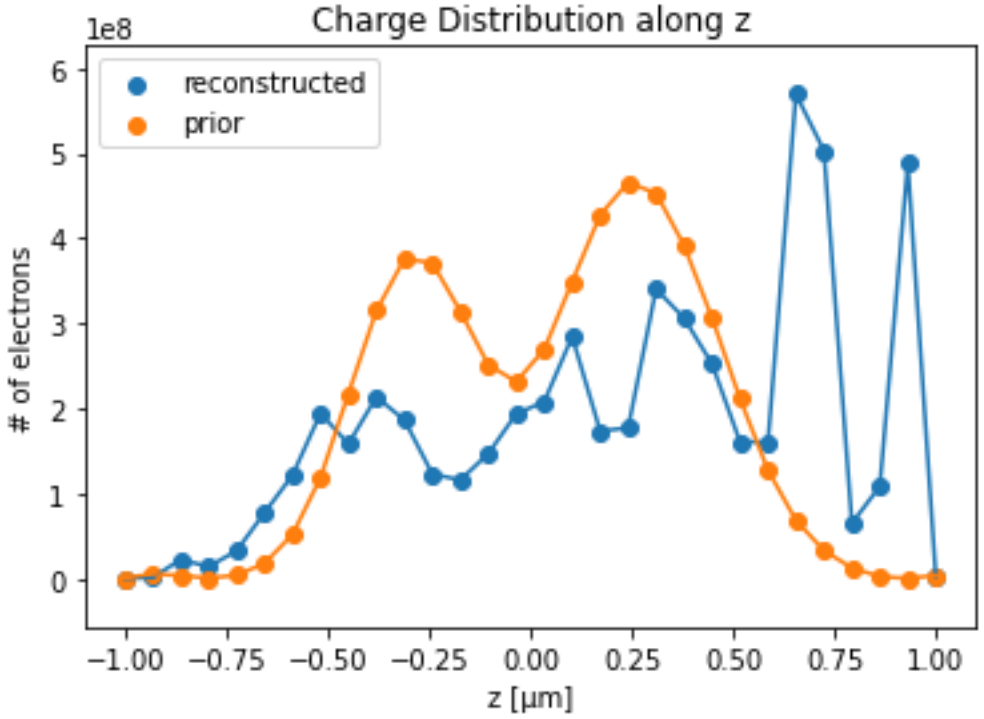

Charge Distribution along z
1e8
reconstructed
prior
# of electrons
z [μm]

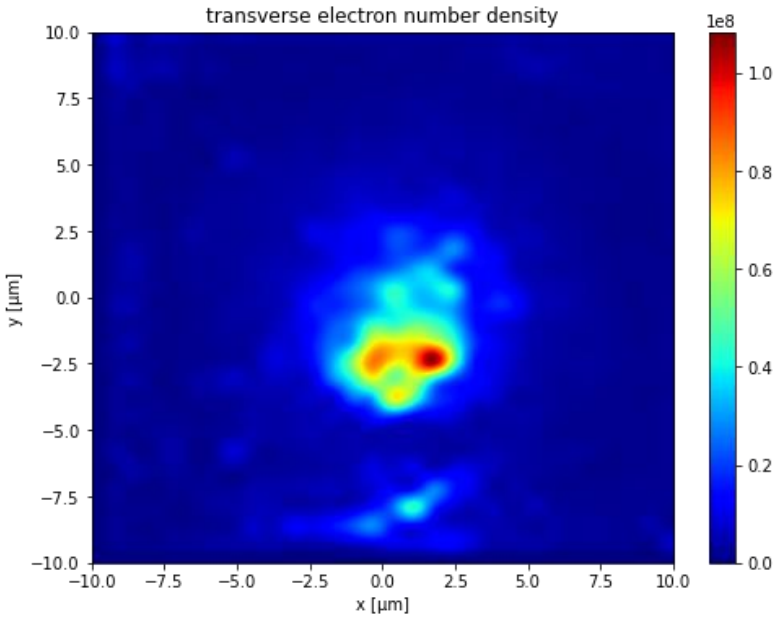

transverse electron number density
1e7
y [μm]
x [μm]

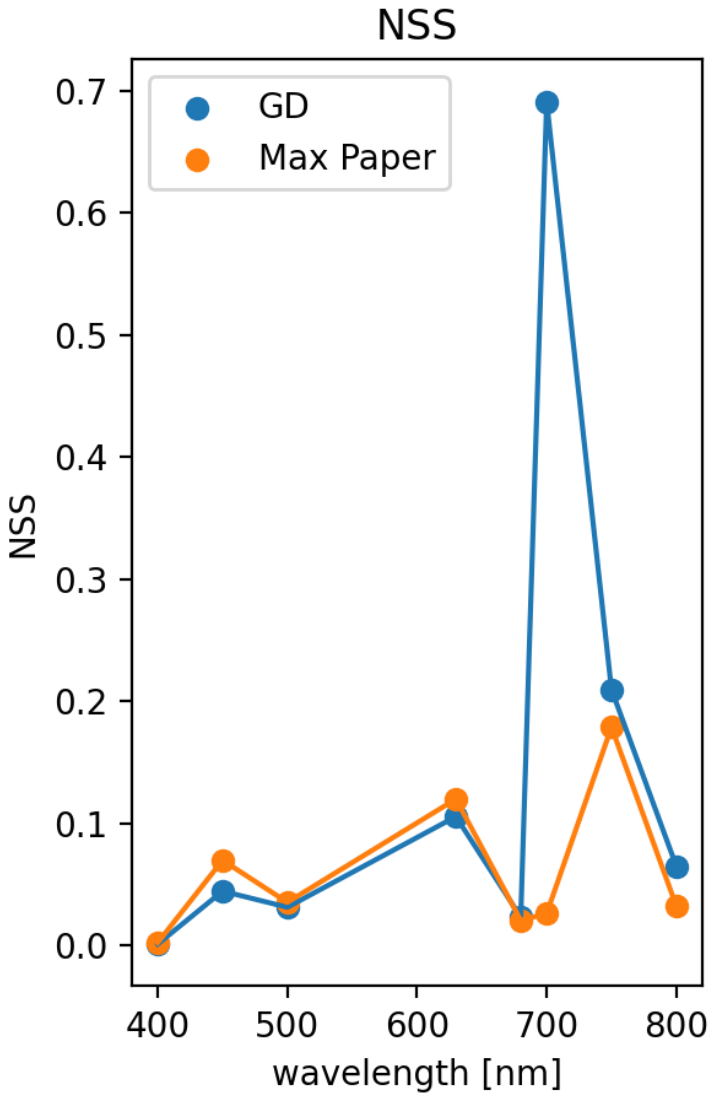

NSS
GD
Max Paper
NSS
wavelength [nm]

20 mins

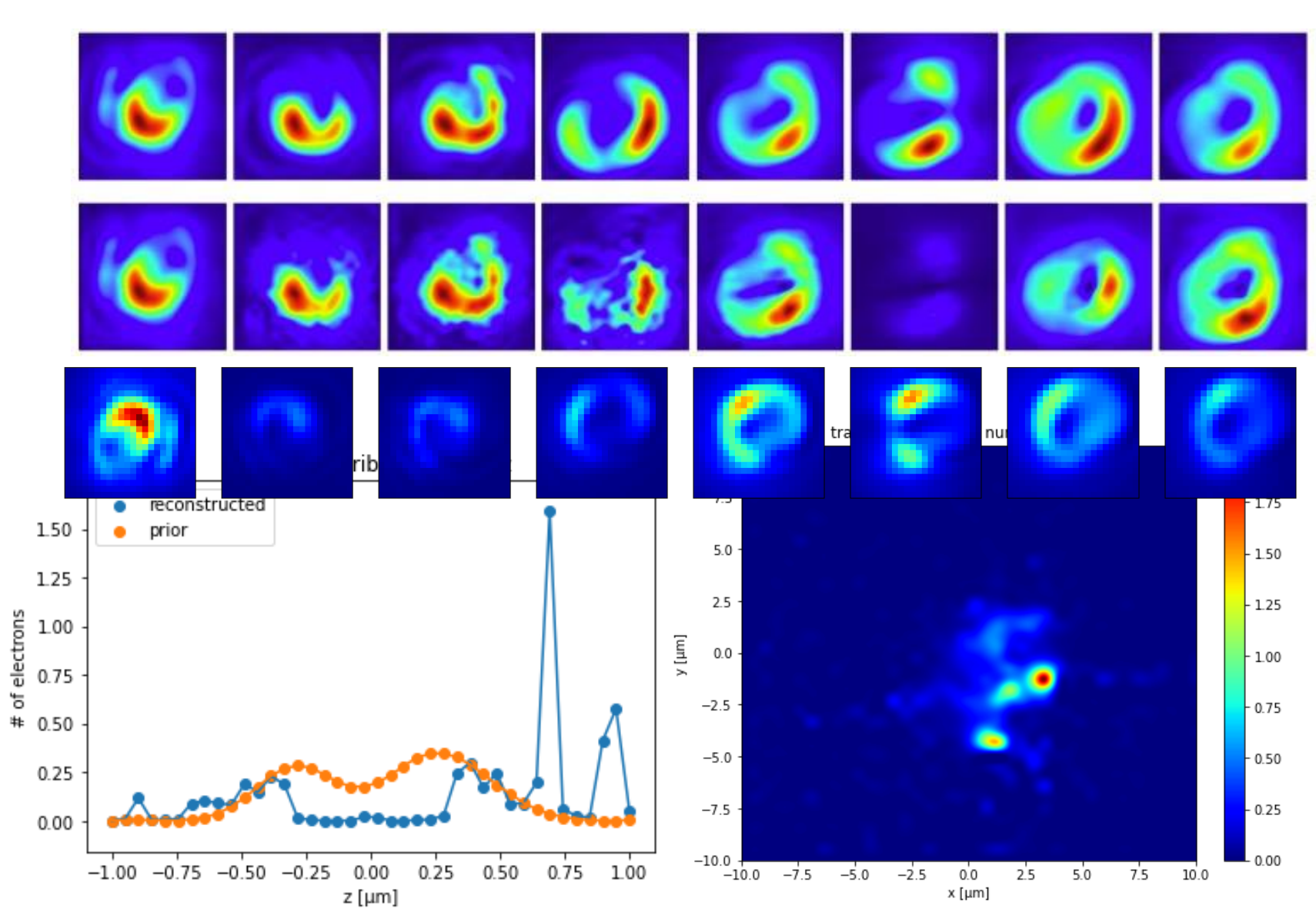


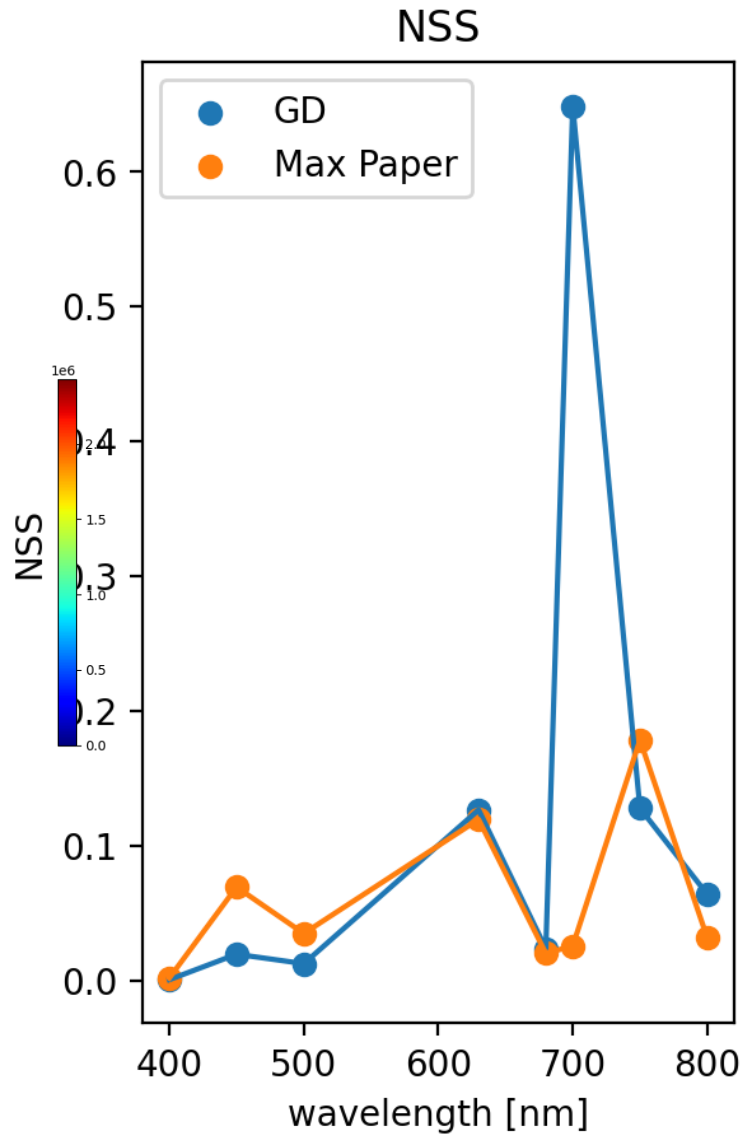

Charge Distribution along z
1e8
reconstructed
prior
# of electrons
z [μm]

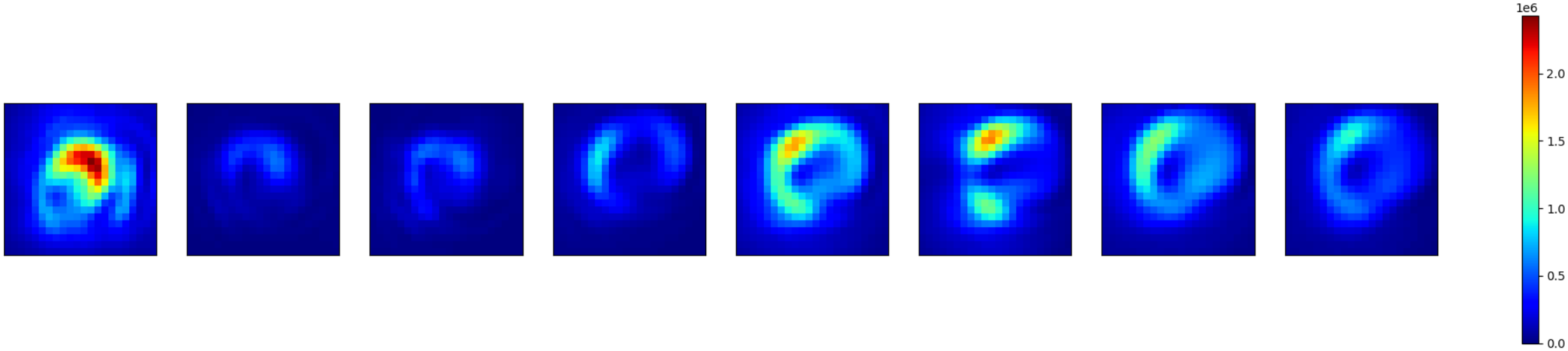

transverse electron number density
1e8
y [μm]
x [μm]


NSS
GD
Max Paper
NSS
wavelength [nm]

4 hours


reconstructed
prior
# of electrons
z [µm]
y [µm]
x [µm]


NSS
GD
Max Paper
NSS
wavelength [nm]


1e6
2.0
1.5
1.0
0.5
0.0

Ways to improve convergence:

1. Check parameters used in code
2. Better modeling (Too many assumptions on detectable COTR calculation)
3. Weighting, optimizer, hyper-parameters
4. Pictures of electrons

Motivation: The design of loss function greatly

impacts the convergence of an optimization problem

Counts: $C(i, j, \lambda_k)$

Loss: $f = w()$