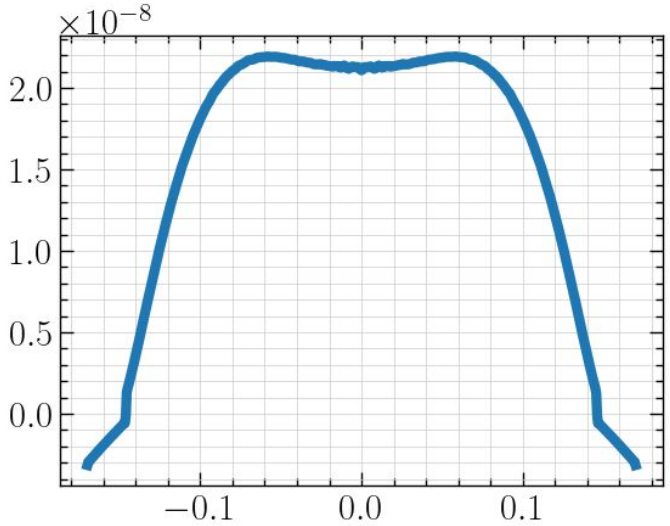
From last update

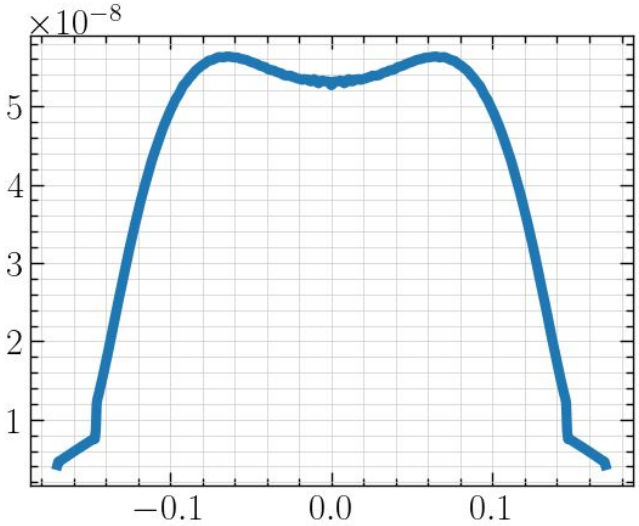
The inconsistency from perfectly flat mirror is fixed. So the code itself does reproduce the PRL paper result (and therefore consistent) if perfect spherical mirror is used. The large drop in cold state (now 268 watts of required input power for 1500 kW of arm power stored) is most likely the top, uneven part of the mirror coating caused majority of the efficiency drop

Radial averaging the mirror

I also tried to do a radial average of the mirror data to smooth out the curve, and it dropped the required input power for 1500kW of arm power from 268 w to 229 w, when the original idea mirror is 222w.

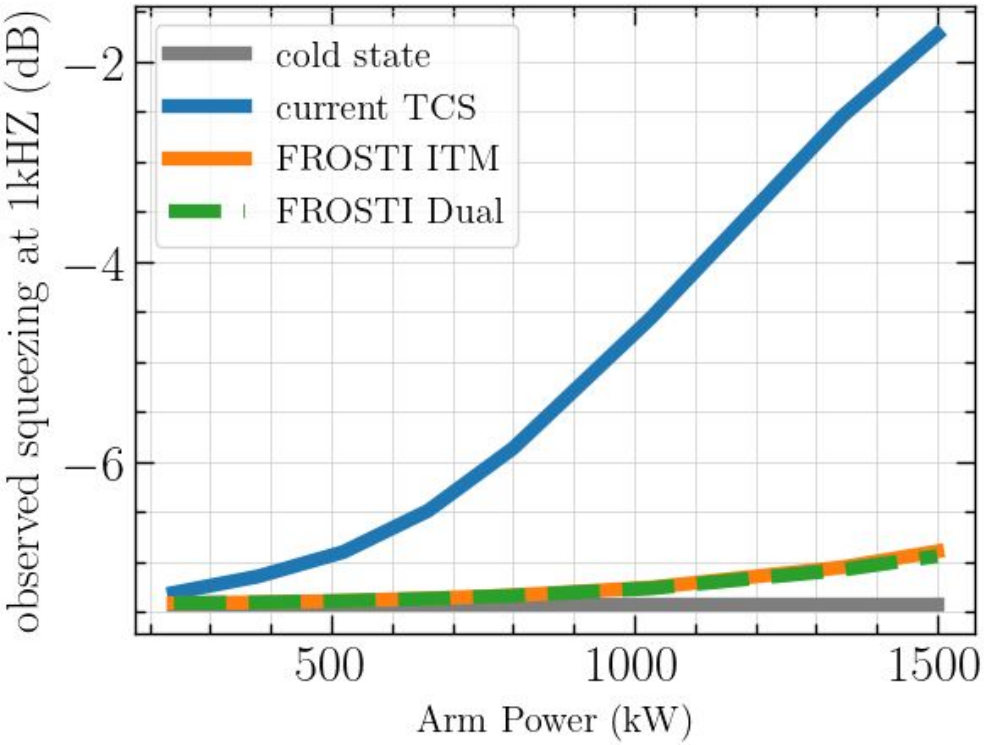


Radial average ITM

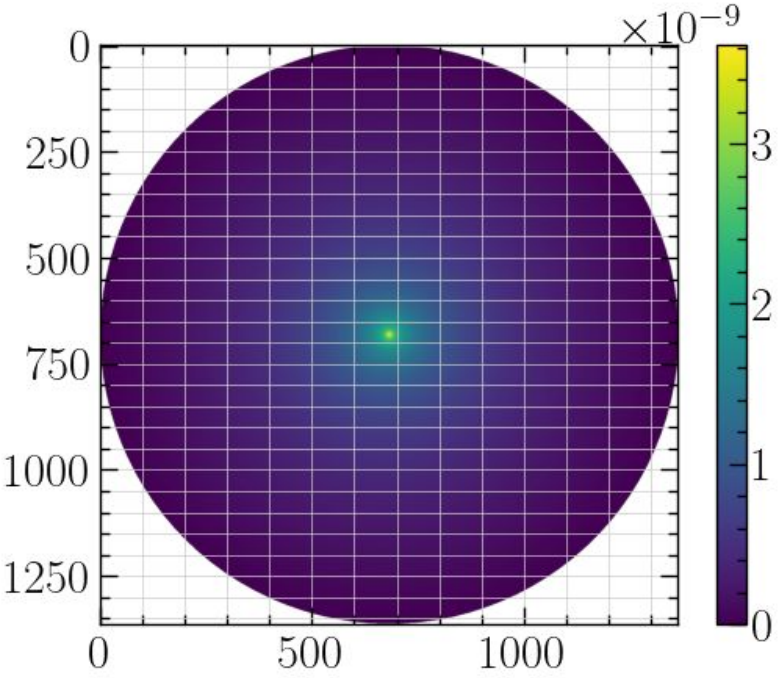


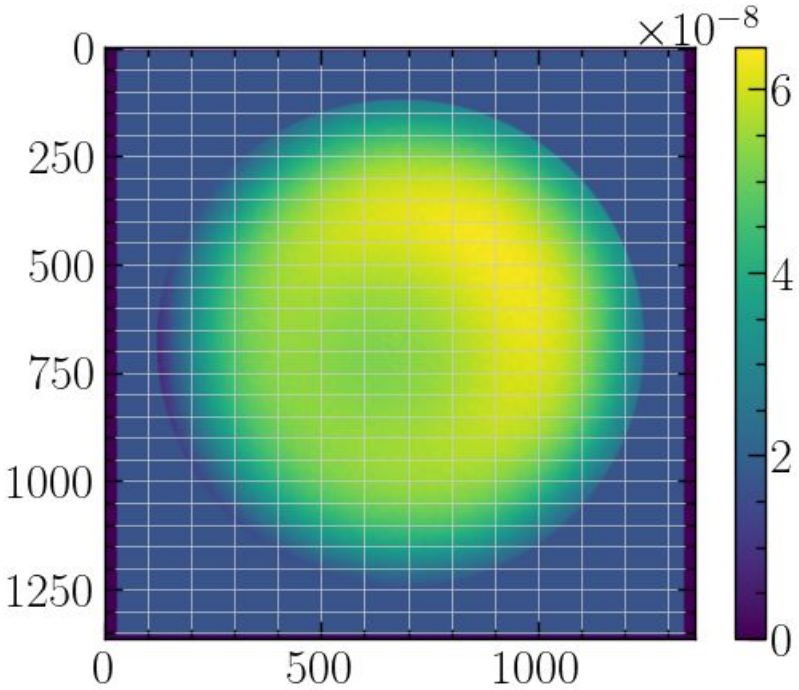
Radial average ETM

Observed squeezing graph after optimization (except current TCS)



Adding point absorbers





When I plot the graph of the mirror after adding point absorbers, it seems like it’s barely noticeable. Is this normal that they are expected to add this small of a height to the mirror coating?

Concerned with the issue of having to interpolate to match the dimension of ptabs instead of letting point absorbers data dimension match mirror map. This means that I’m generally feeding larger data all my simulations than before. More points for everything might significantly slow down the simulation.

Coating after adding point absorbers