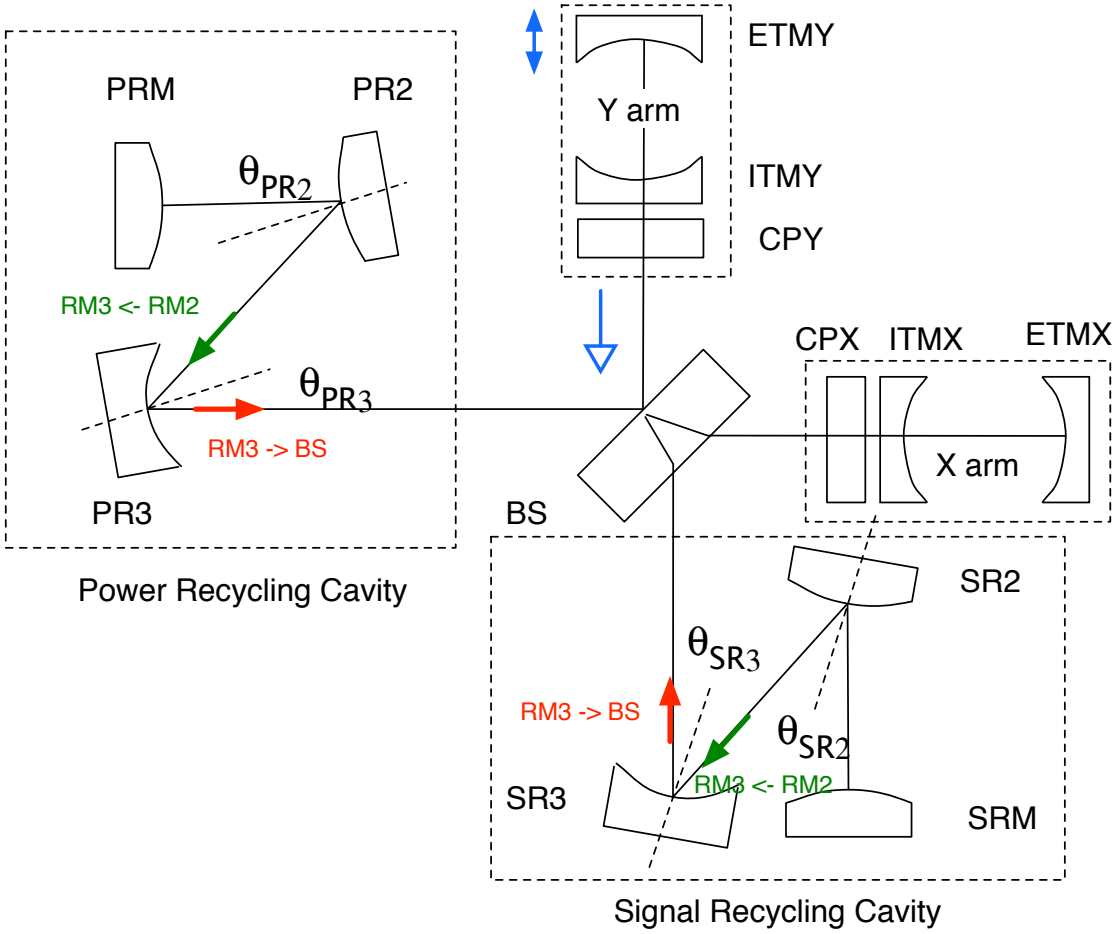
RM3 size and astigmatism of AdvVirgo stable cavity

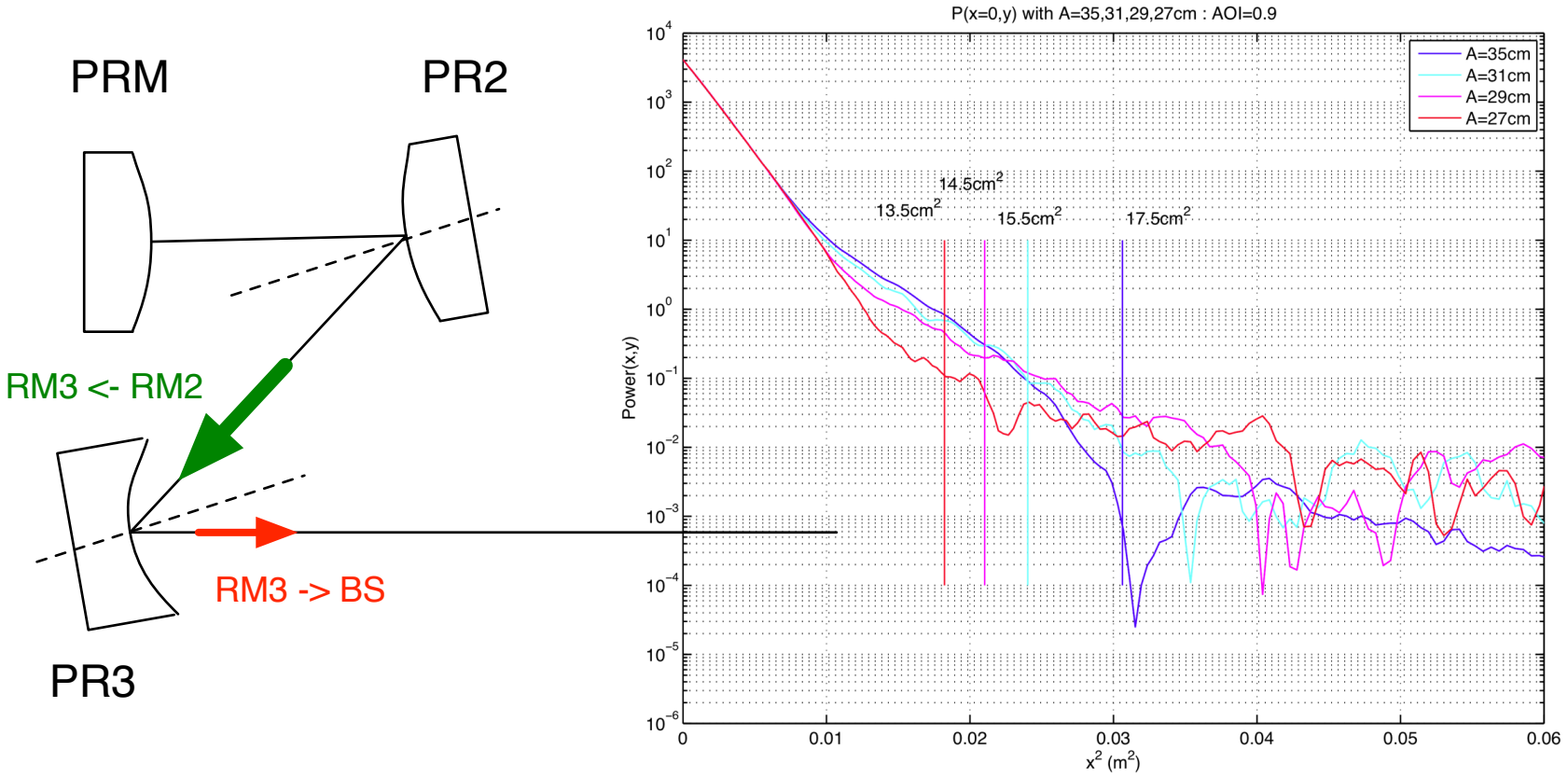


Cavity parameters

new PRC (old PRC) / SRC

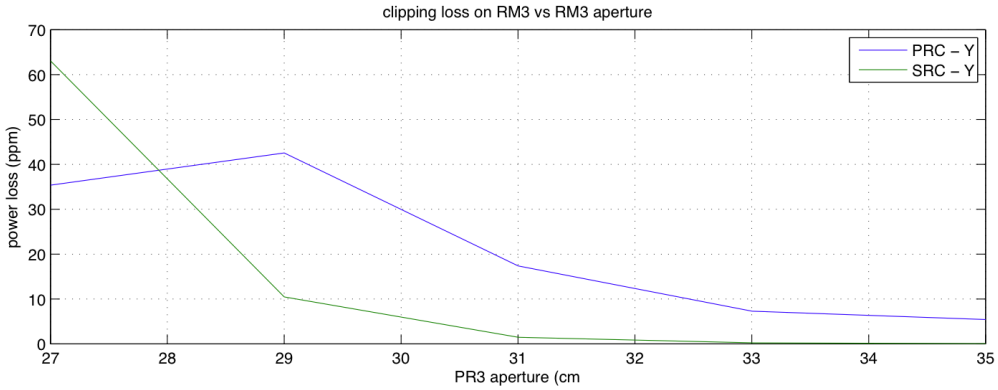
- RM.opt.T = 0.0464 / 0.11
- RM.opt.ROC = -2.853 (-12.26288) / -2.866
- RM2.aperture = 0.15
- RM2.ROC = -2.853 (-2) / -2.866
- RM2.incident.theta = 0.9 / 1 degree
- RM3.aperture = 0.35
- RM3.ROC = 22.543 (23.0304) / 21.626
- RM3.incident.theta = 0.9 / 1 degree
- RM_RM2 = 10.027 (10.5) / 9.556
- RM2_RM3 = 10.12332322 / 9.65211690 (10.69836864)
- RM3_BS = 10.45 (6) / 9.952
- BS_ITM = 5.499 (5.55728) / 5.4990

Aperture dependence
log(power) vs x^2

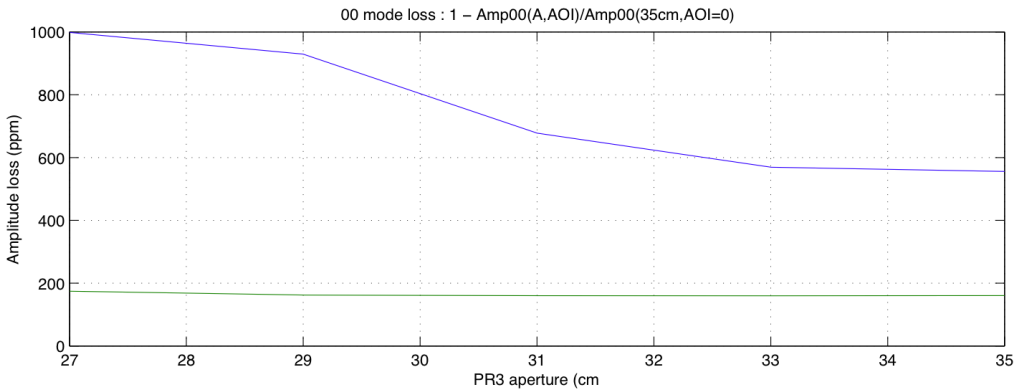


Loss

1 – Power(RM3->BS) / Power(RM3<-RM2)



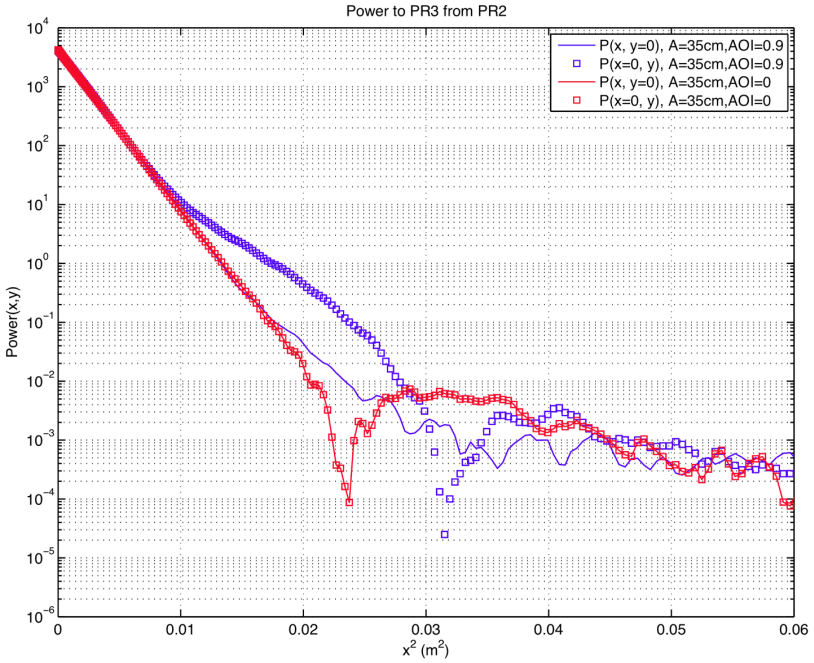
1 – Amp(A,AOI) / Amp (35cm,AOI=0)
Amp= ∫ E(A,AOI) * E(A=35cm,AOI=0)'



Astigmatism

log(power) vs x^2

Power on PRM3 from PRM2



Power on SRM3 from SRM2