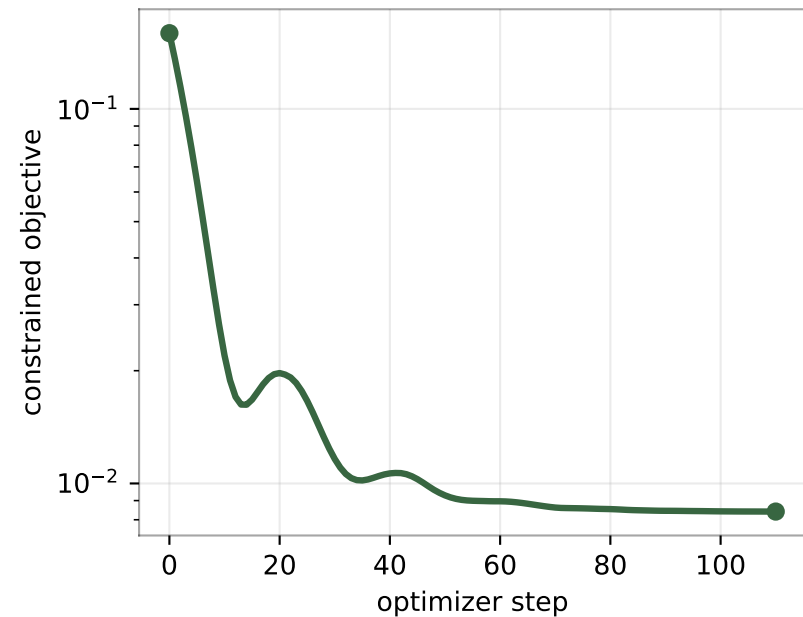
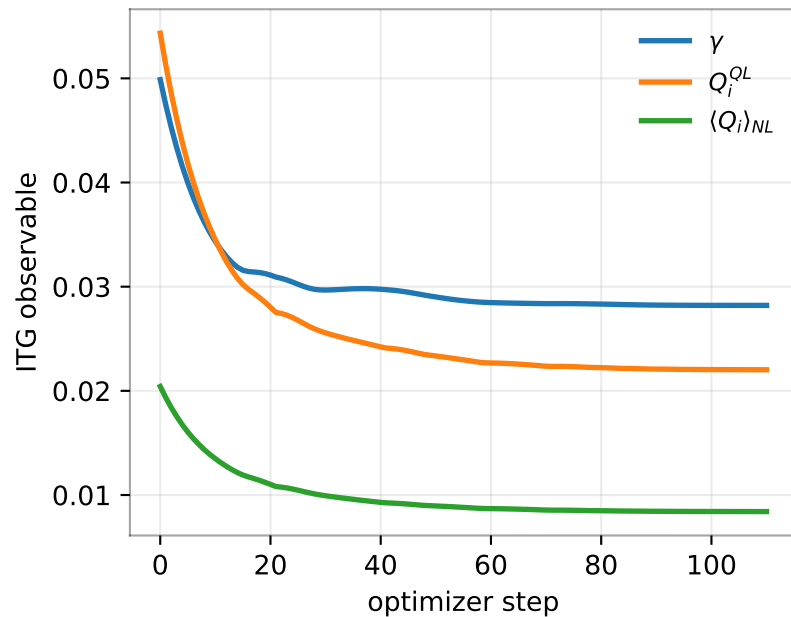


QA stellarator optimization for small nonlinear ITG heat flux

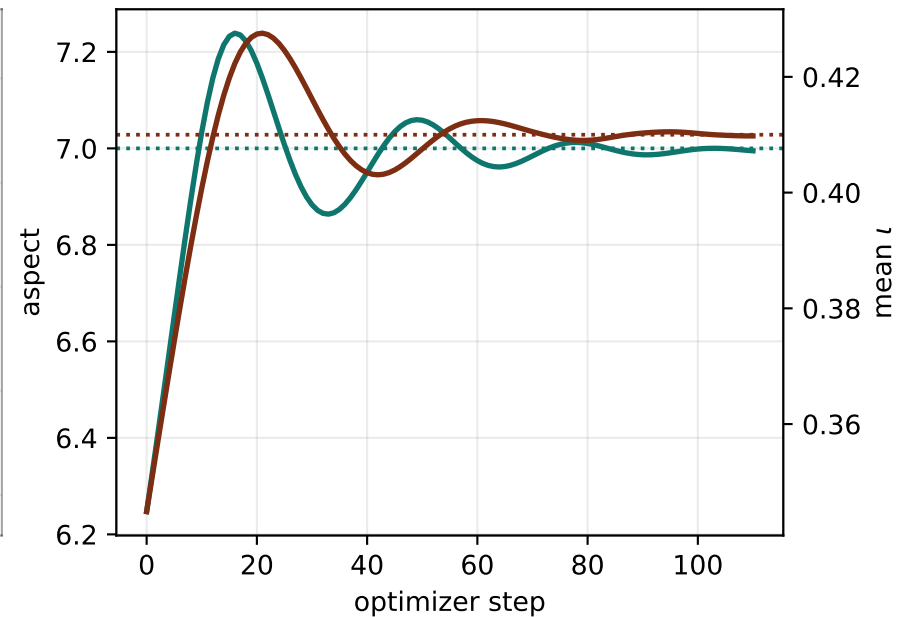
Objective reduction



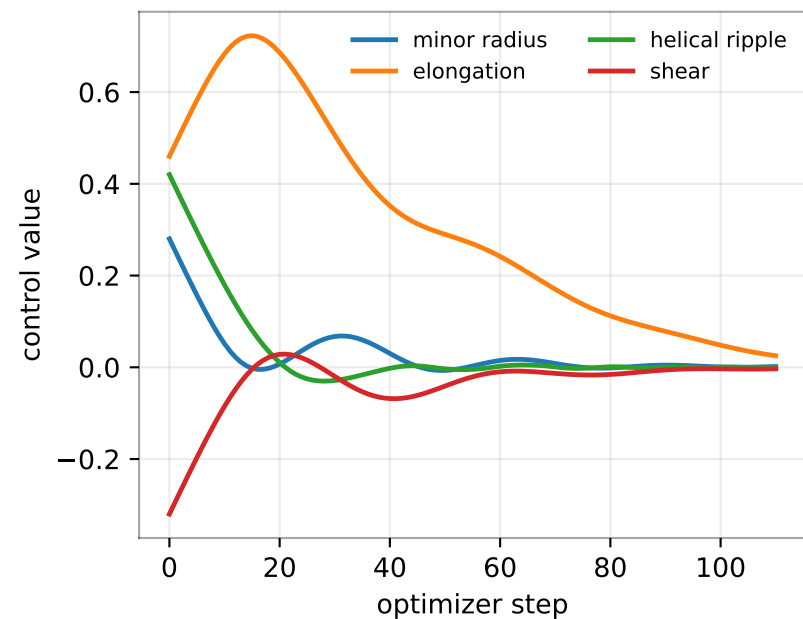
Transport observables



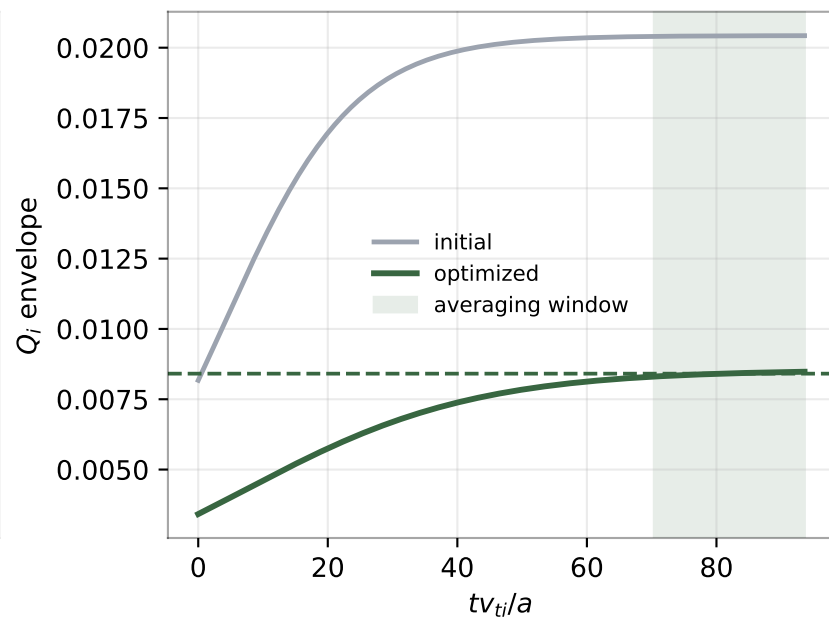
QA constraints



Max-mode-1 controls



Nonlinear heat-flux window



AD/FD gate: True
max |AD-FD| = 6.24e-06
tail CV = 0.006
tail trend = 0.020
final QA residual = 2.04e-04