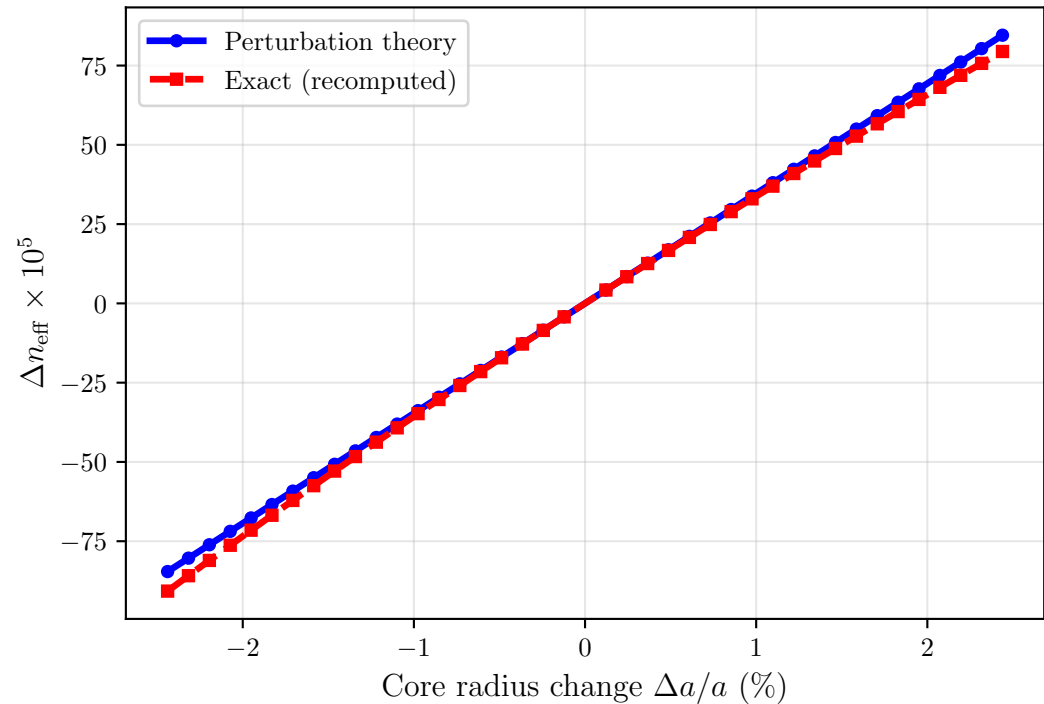Radius Perturbation Validation