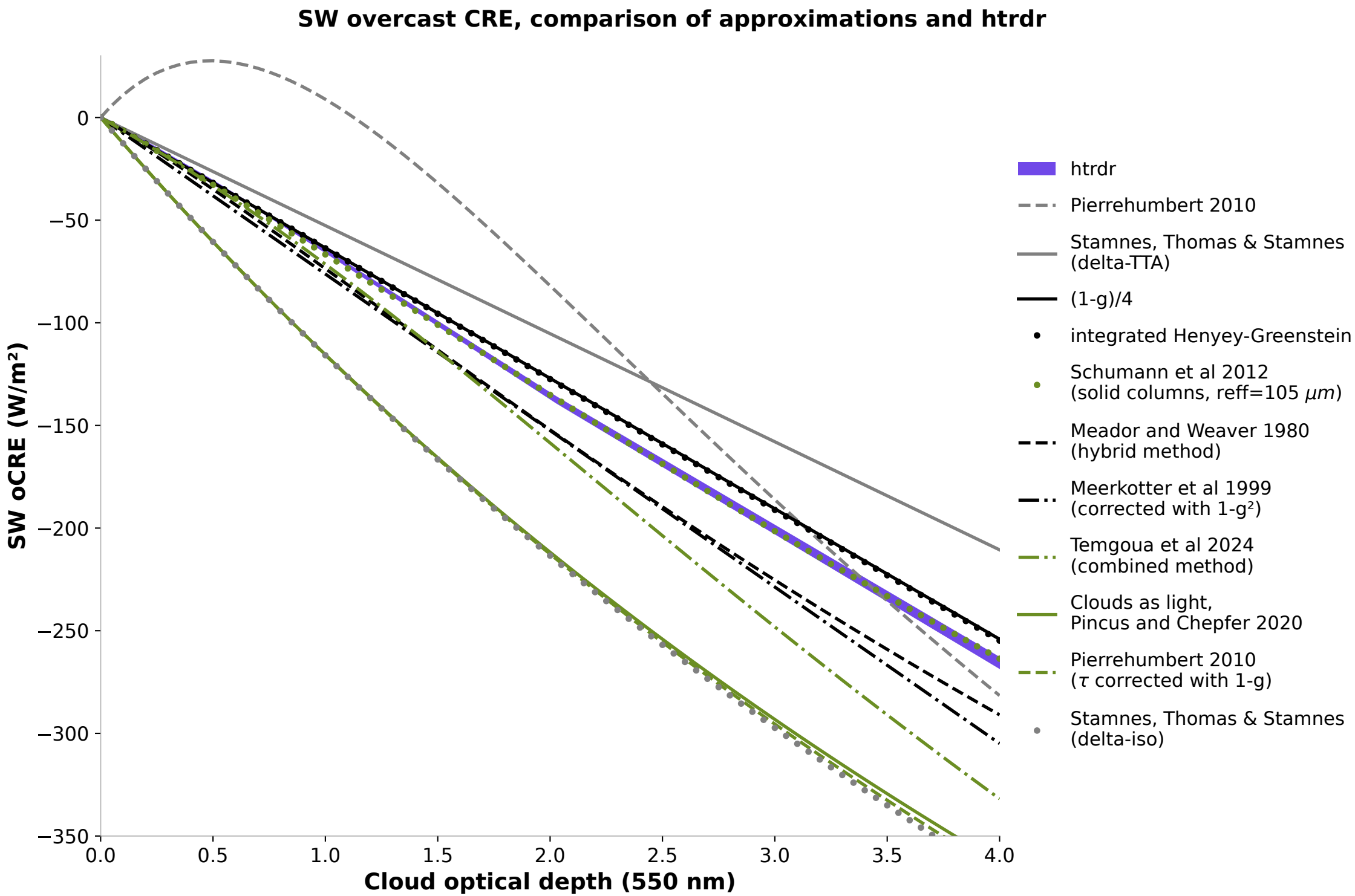
SW overcast CRE, comparison of approximations and htrdr
SW oCRE (W/m²)
Cloud optical depth (550 nm)
0
−50
−100
−150
−200
−250
−300
−350
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0
htrdr
Pierrehumbert 2010
Stamnes, Thomas & Stamnes (delta-TTA)
(1-g)/4
integrated Henyey-Greenstein
Schumann et al 2012 (solid columns, reff=105 μm)
Meador and Weaver 1980 (hybrid method)
Meerkotter et al 1999 (corrected with 1-g²)
Temgoua et al 2024 (combined method)
Clouds as light, Pincus and Chepfer 2020
Pierrehumbert 2010 (τ corrected with 1-g)
Stamnes, Thomas & Stamnes (delta-iso)