- Atmosphere : grey Eddington relation $T(\tau)=T_{eff}\,[3/4.(\tau + 2/3)]^{0.25}$

  starting at $\tau = 0.001$ and matching where $T = T_{eff}$ $(\tau = 2/3)$

- MLT : Böhm-Vitense treatment (1958)

- Convective opacities : included

Isotopic ratios :

Isotopic fractions	Anders&Grevesse (1989)	TGEC
fC12	0.989000	0.985423
fC13	0.011000	0.014577
fN14	0.996340	0.99668
fN15	0.003660	0.00332
fO16	0.997620	0.99737
fO17	0.000380	0.00063
fO18	0.002000	0.002
fNe20	0.929800	0.89
fNe21	0.002300	-
fNe22	0.067900	0.11
fMg24	0.789900	0.7870
fMg25	0.100000	0.1013
fMg26	0.110100	0.1117

Energy production

Reaction	Q (CESAM)	Q (STAROX)	Q (TGEC)
H1(p,e+,v)H2(p,g)He3	6.67263	6.665	6.686
He3(He3,2p)He4	12.85995	12.859	12.860
He4(He3,g)Be7	1.58719	1.587	1.586
Be7(e-,vg)Li7(p,He4)He4	17.39634	17.347	17.397
Be7(p,g)B8(e+,v)Be8(He4)He4	11.49839	11.407	11.011
C12(p,g)N13(e+,v)C13	3.45139	3.463	3.455
C13(p,g)N14	7.54986	7.551	7.551
N14(p,g)O15(e+,v)N15	9.05532	9.054	9.059
N15(p,g)O16	12.12594	12.127	12.127
N15(p,He4)C12	4.96464	4.966	4.966
O16(p,g)F17(e+,v)O17	2.35914	2.363	2.423
O17(p,He4)N14	1.19281	1.192	1.193
O17(p,g)F18	-	-	6.865
O18(p,He4)N15	-	-	3.980
O18(p,g)F19	-	-	7.993

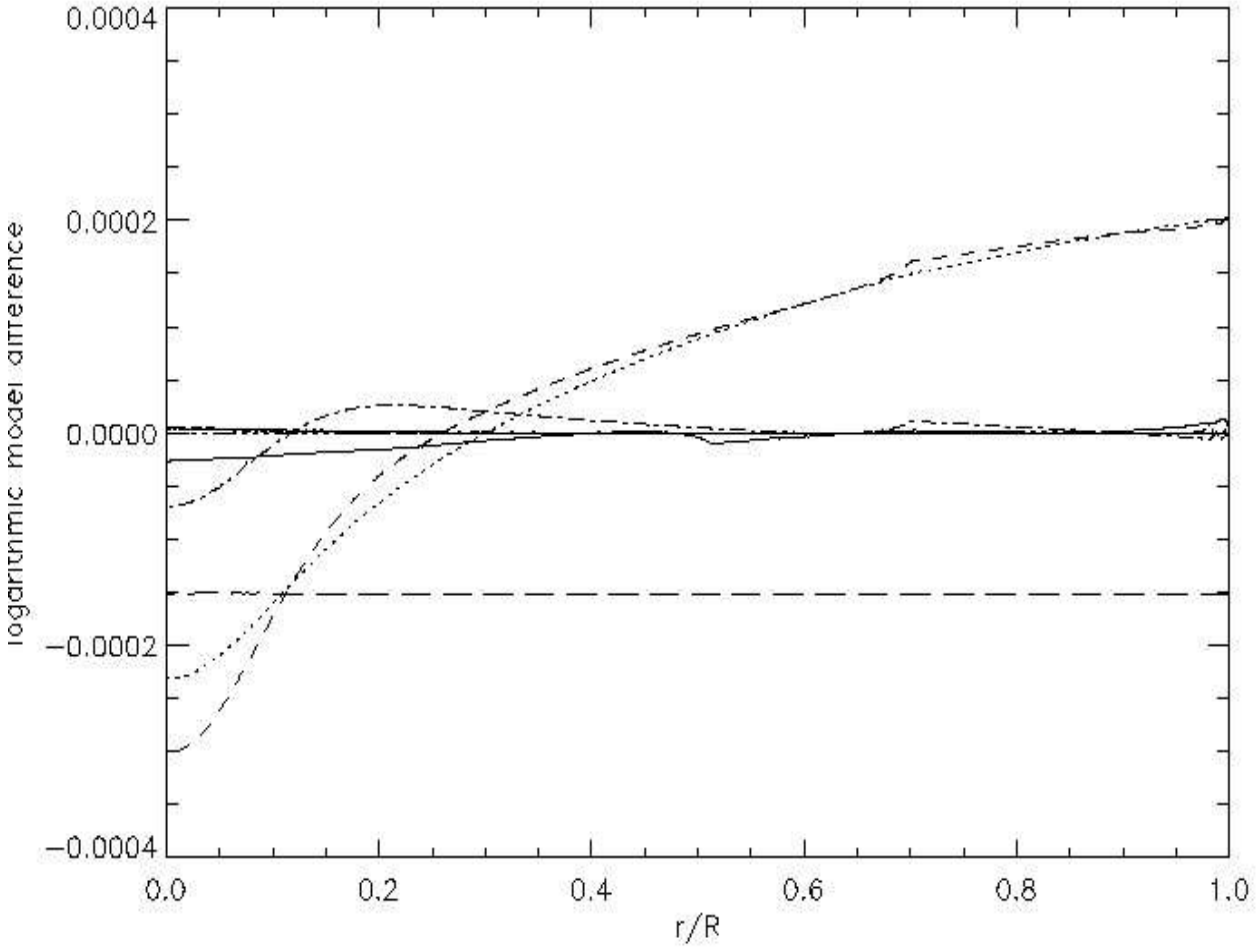
Case 1.1

$M = 0.9\ M_{\odot}$

$X_c = 0.35$

$T(\Delta t)-T(\Delta t - 10\%)$

- $\delta \ln T$
- $\delta \ln p$
- $\delta \ln \rho$
- $\delta \ln c^2$
- $\delta \ln \Gamma_1$
- $\delta \ln L$
- $\delta \ln X$



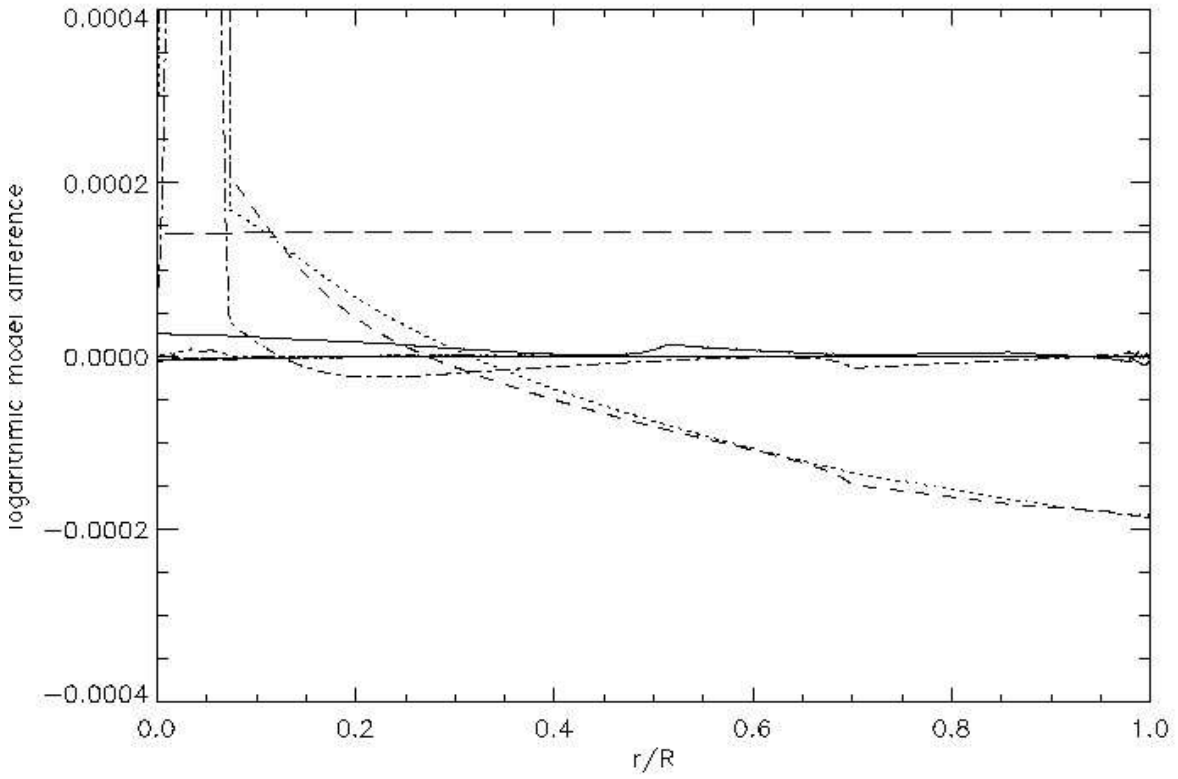
Case 1.1

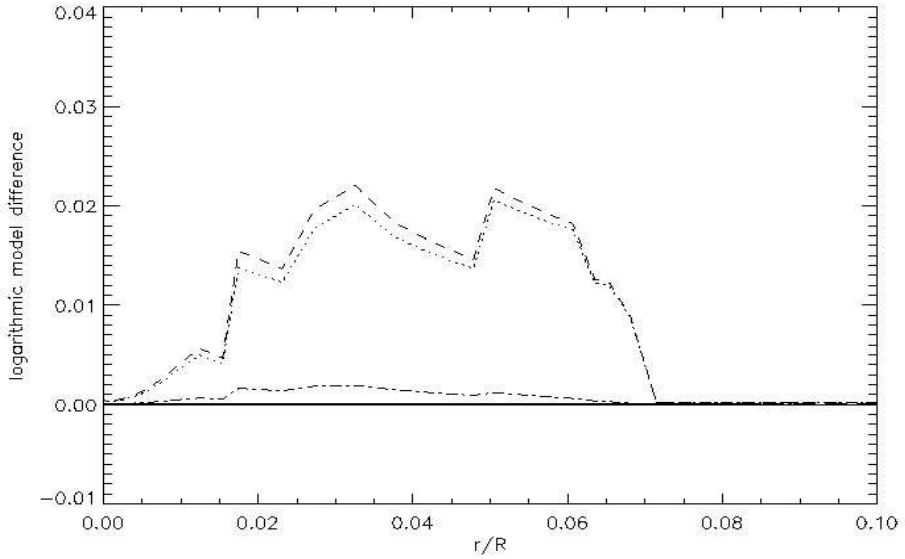
$M = 0.9\ M_{\odot}$

$X_c = 0.35$

$T(\Delta t)-T(\Delta t + 10\%)$

- $\delta \ln T$
- $\delta \ln p$
- $\delta \ln \rho$
- $\delta \ln c^2$
- $\delta \ln \Gamma_1$
- $\delta \ln L$
- $\delta \ln X$





Case 1.1

$M = 0.9\ M_{\odot}$

$X_c = 0.35$

$T(\Delta t)-T(\Delta t/2)$

- $\delta \ln T$
- $\delta \ln p$
- $\delta \ln \rho$
- $\delta \ln c^2$
- $\delta \ln \Gamma_1$
- $\delta \ln L$
- $\delta \ln X$