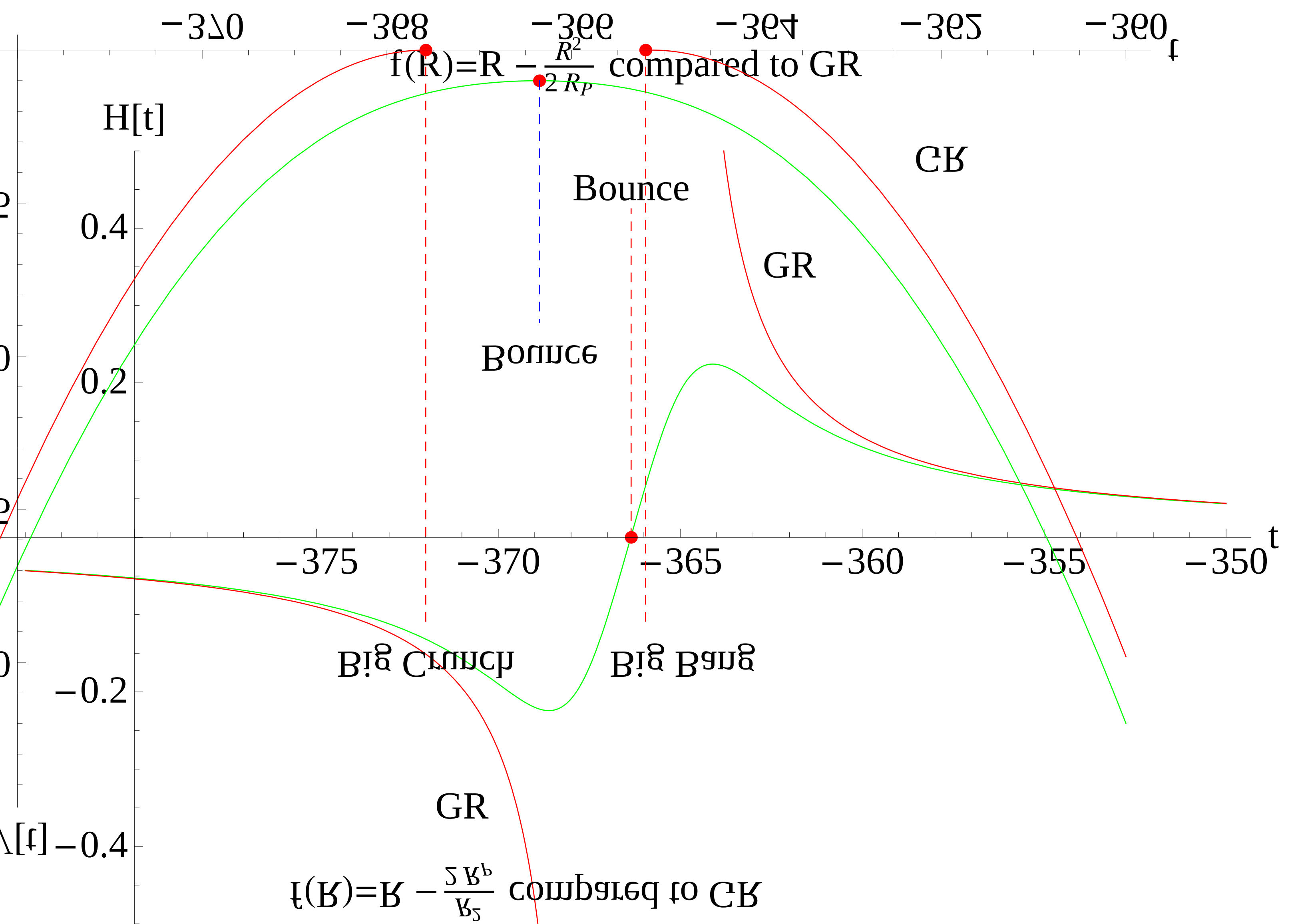
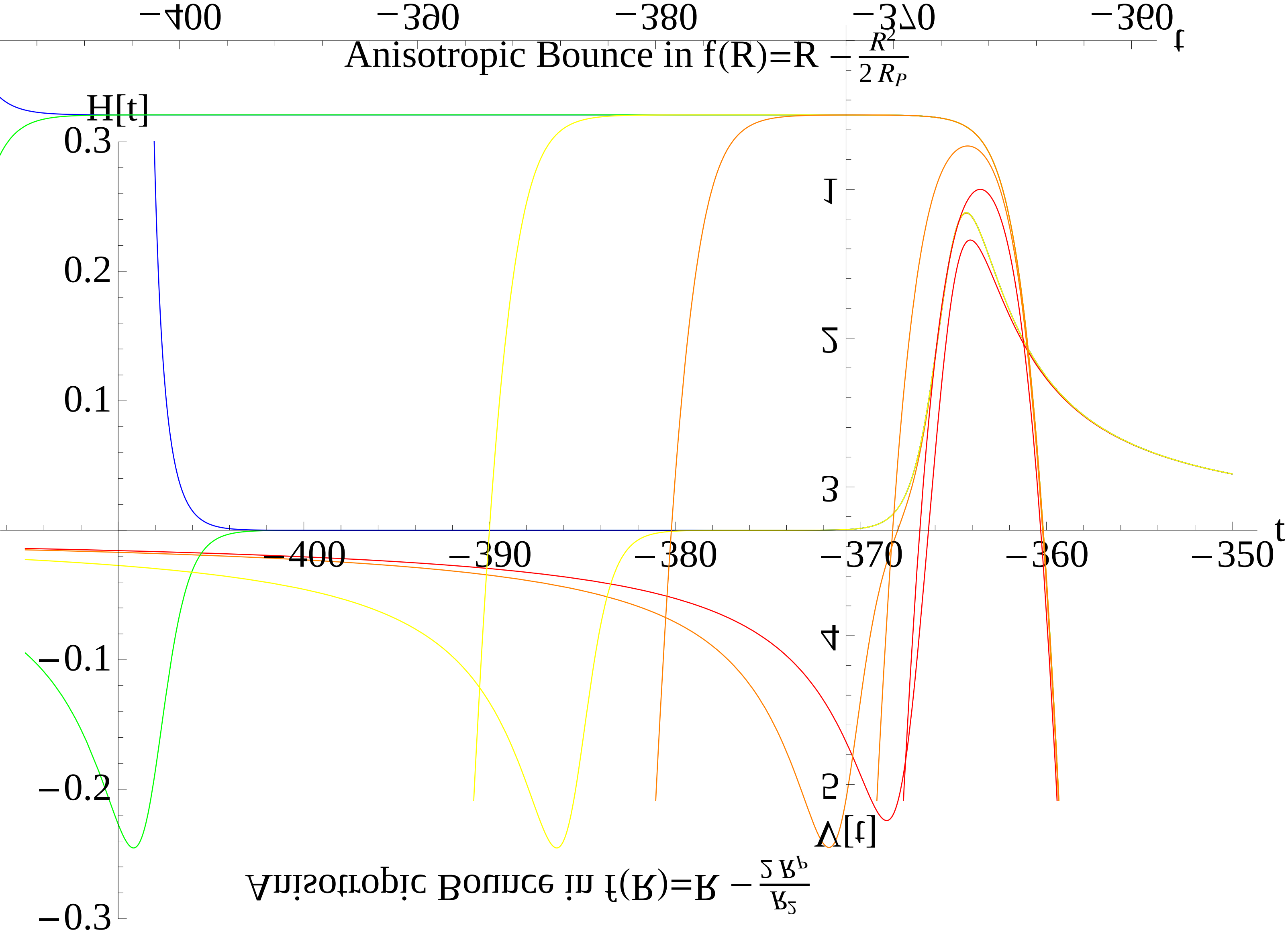
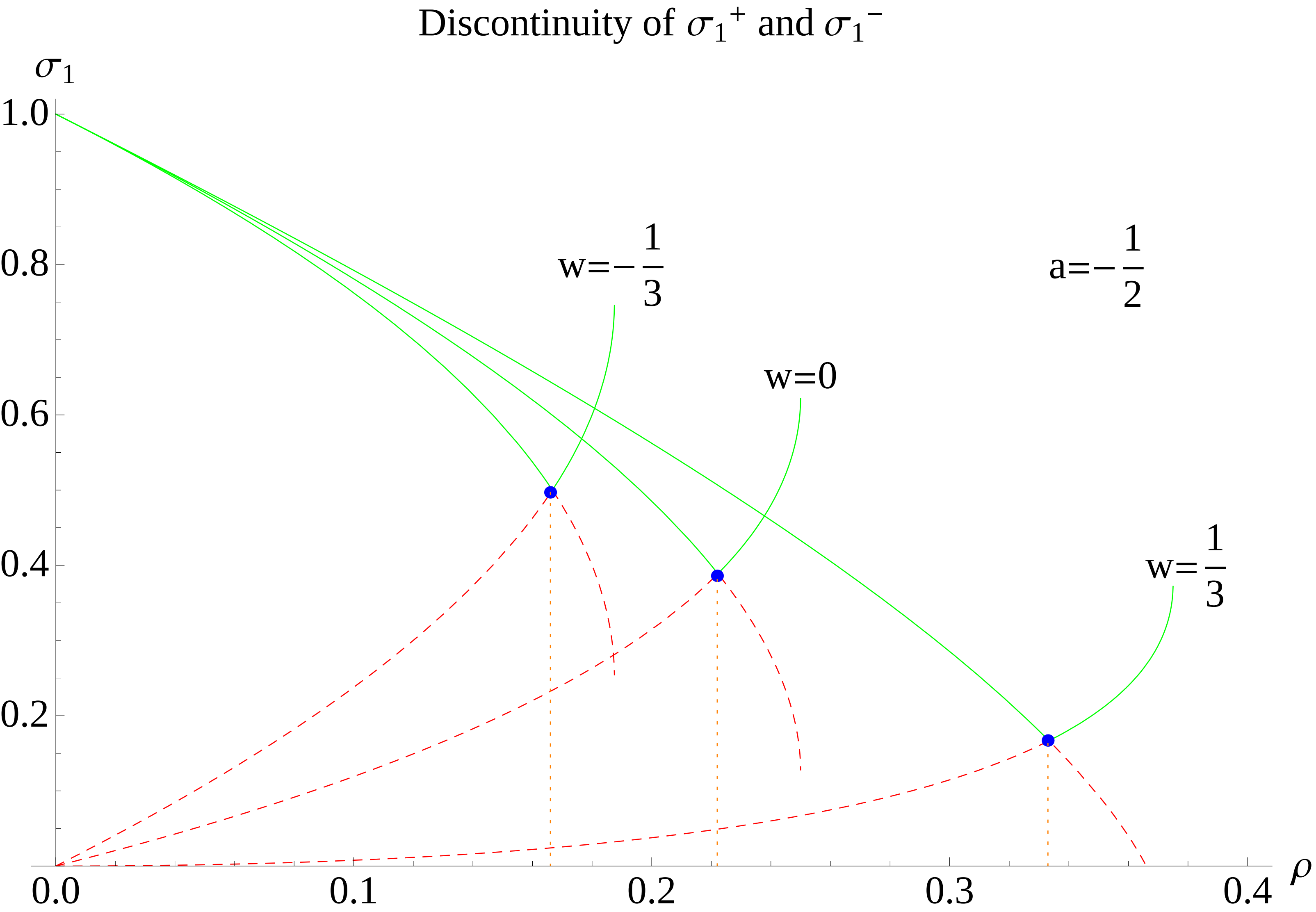
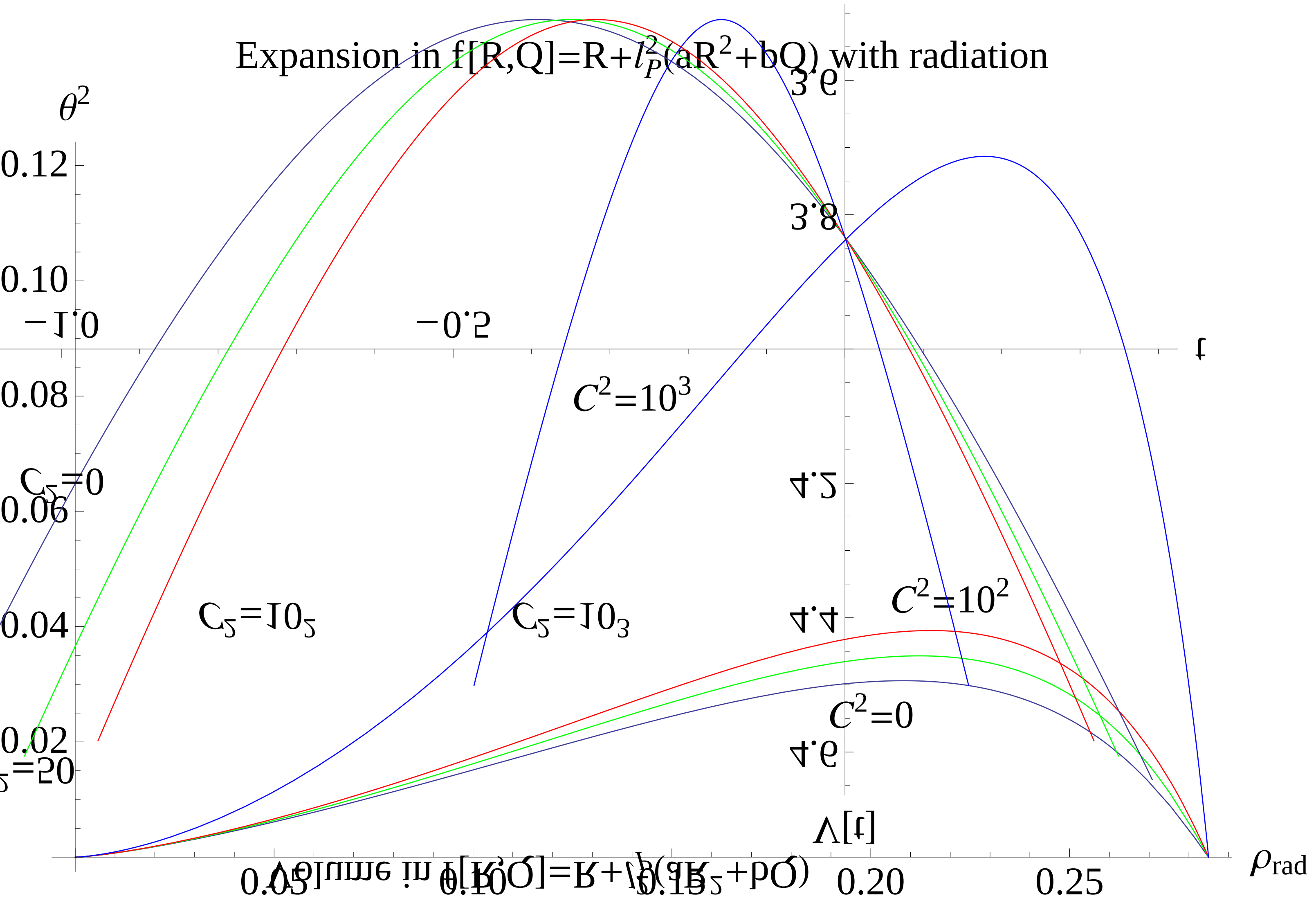
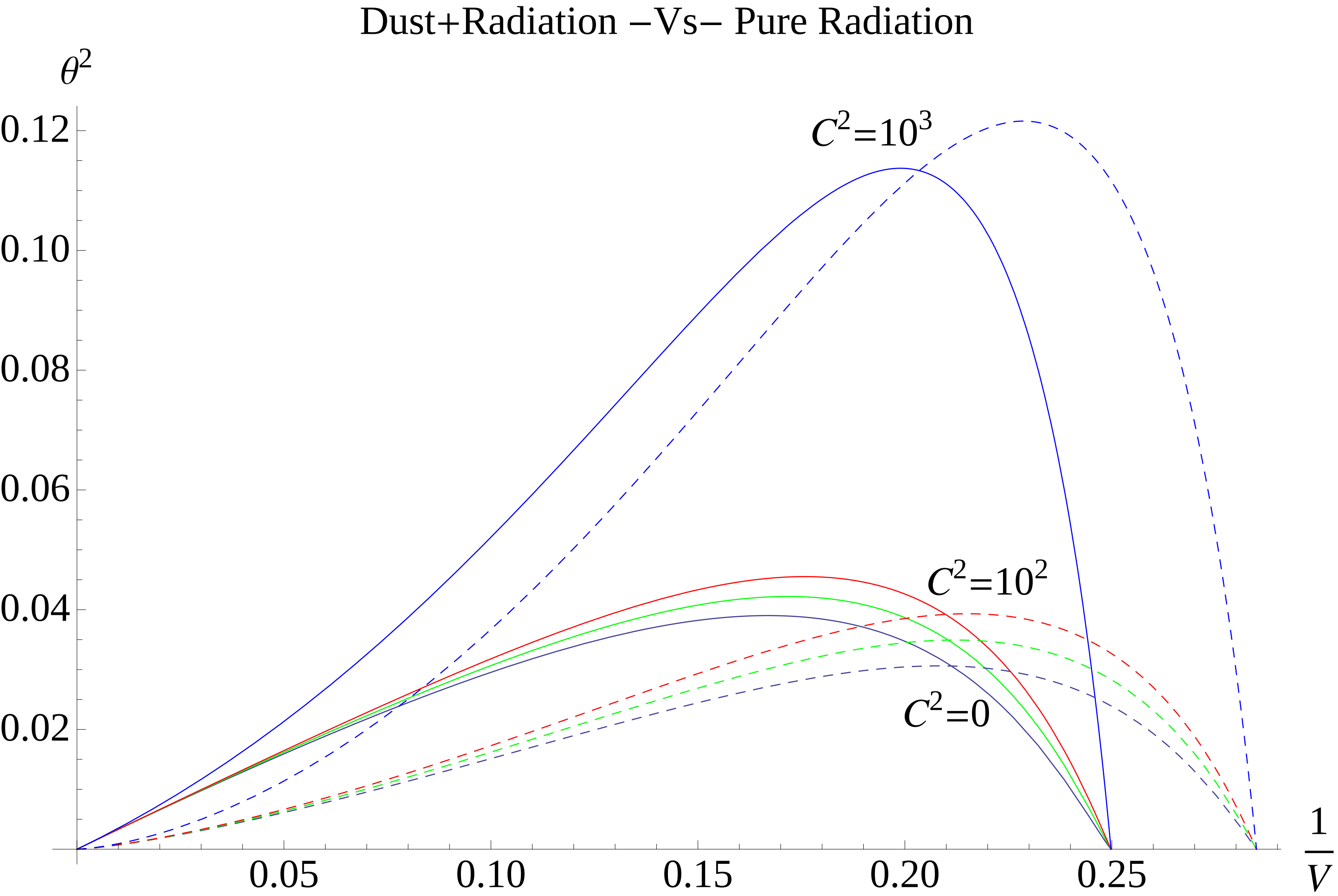

$f(R)=R-\frac{R^2}{2R_P}$ compared to GR
H[t]
0.4
0.2
−0.2
−0.4
Bounce
GR
GR
t
−375
−370
−365
−360
−355
−350


Anisotropic Bounce in f(R)=R − $\frac{R^2}{2 R_P}$
H[t]
0.3
0.2
0.1
−0.1
−0.2
−0.3
−400
−390
−380
−370
−360
−350
t
V[t]
1
2
3
4
5


Discontinuity of σ_1^+ and σ_1^-
σ_1
1.0
0.8
0.6
0.4
0.2
$w=-\frac{1}{3}$
$a=-\frac{1}{2}$
$w=0$
$w=\frac{1}{3}$
0.0
0.1
0.2
0.3
0.4
ρ


Expansion in f[R,Q]=R+l_P^2(aR^2+bQ) with radiation
θ^2
0.12
0.10
0.08
0.06
0.04
0.02
0.05
0.10
0.15
0.20
0.25
$\rho_{\rm rad}$
C^2=10^3
C^2=10^2
C^2=0


Dust+Radiation −Vs− Pure Radiation
θ²
0.12
0.10
0.08
0.06
0.04
0.02
C²=10³
C²=10²
C²=0
0.05
0.10
0.15
0.20
0.25
1/V