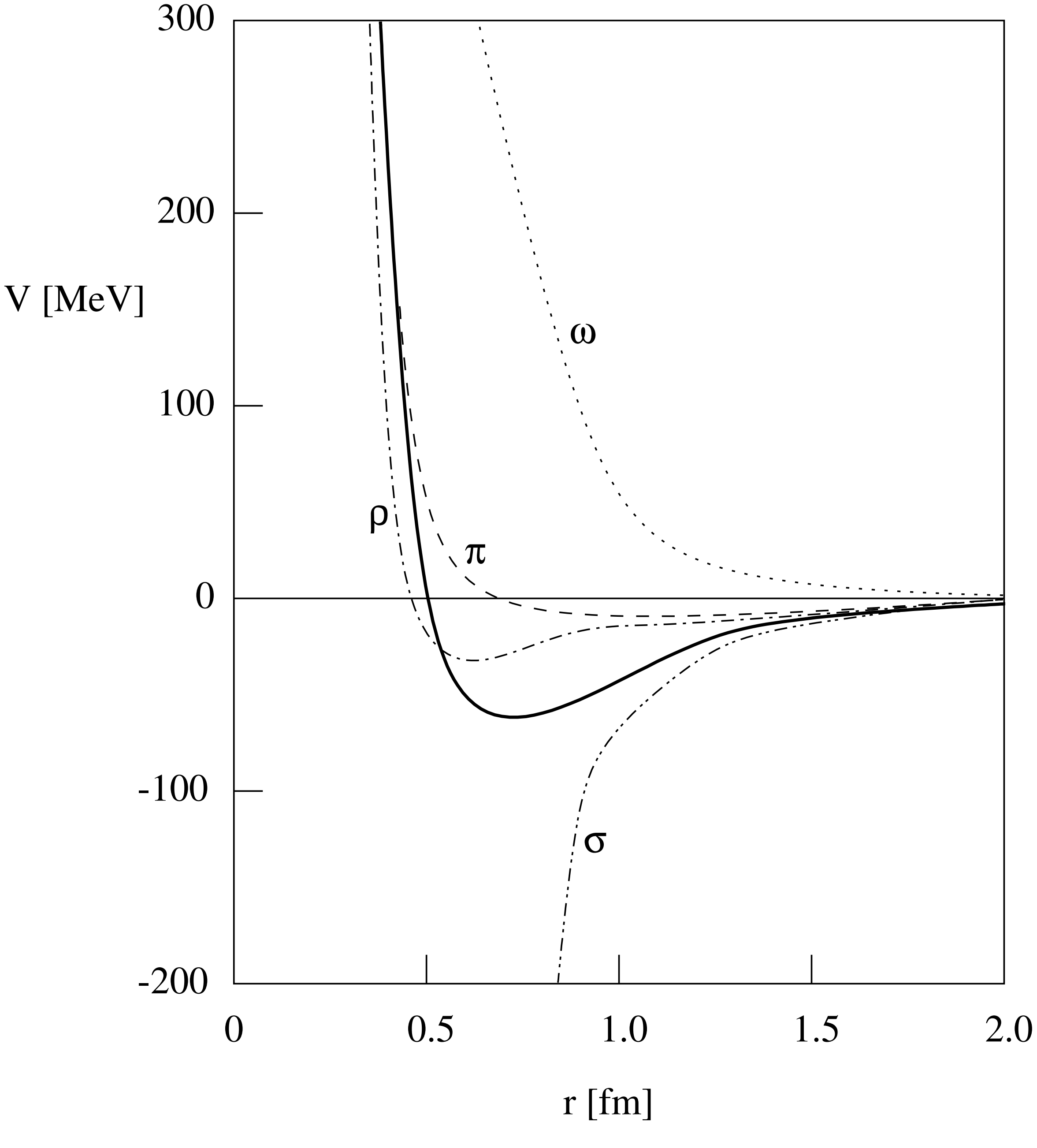
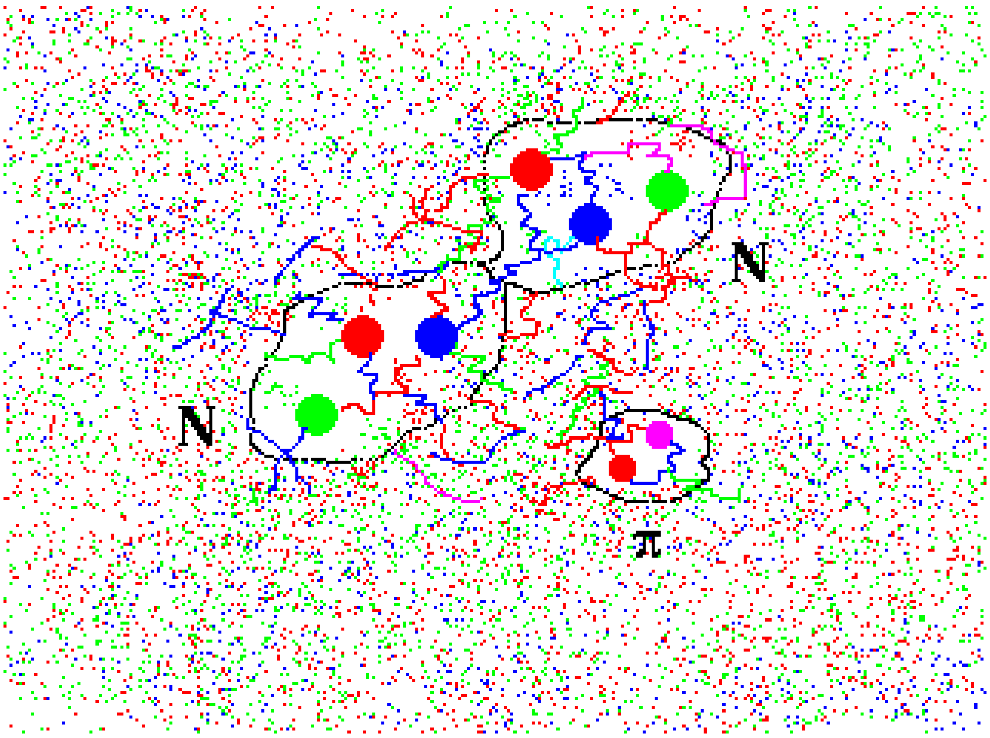
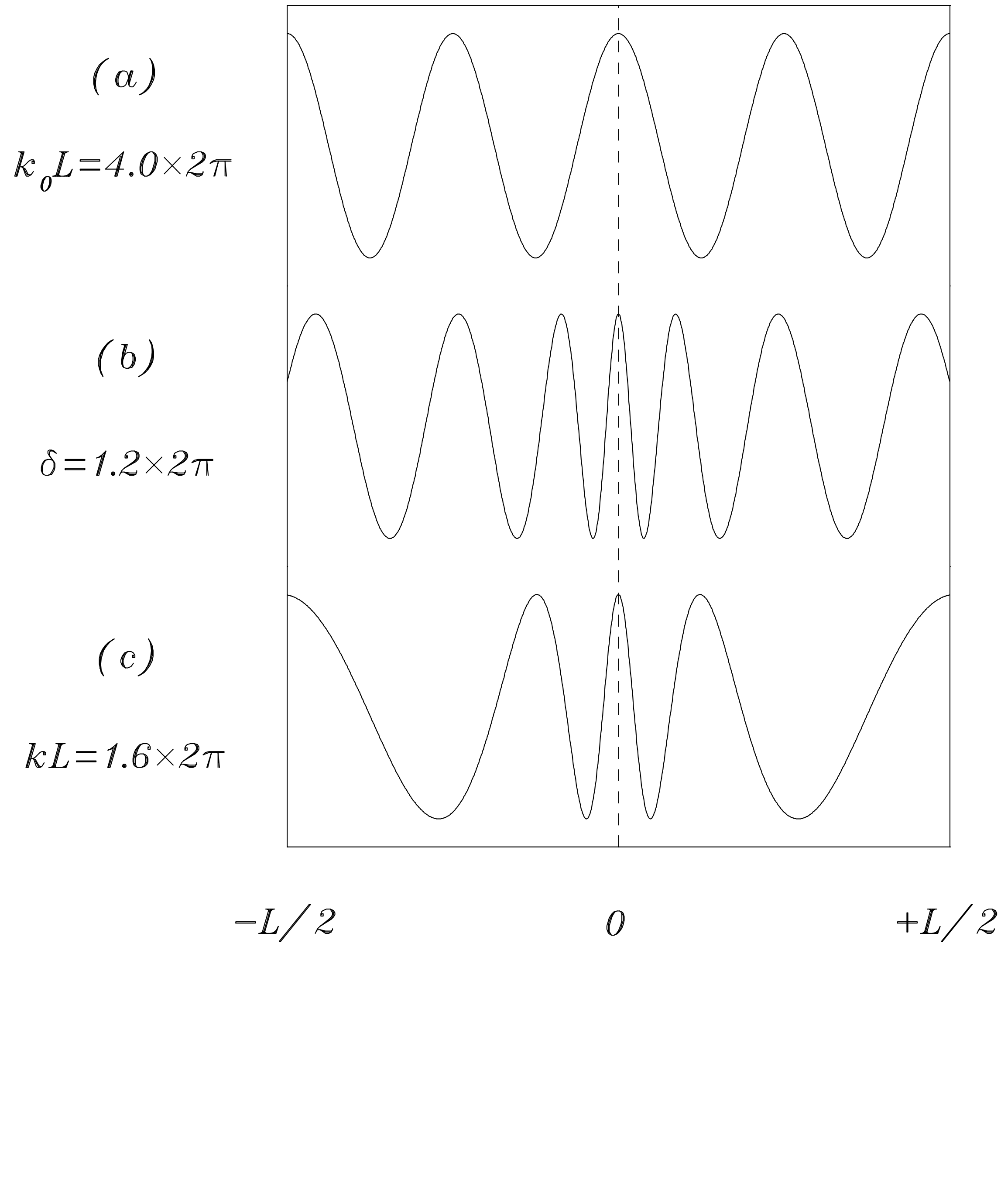
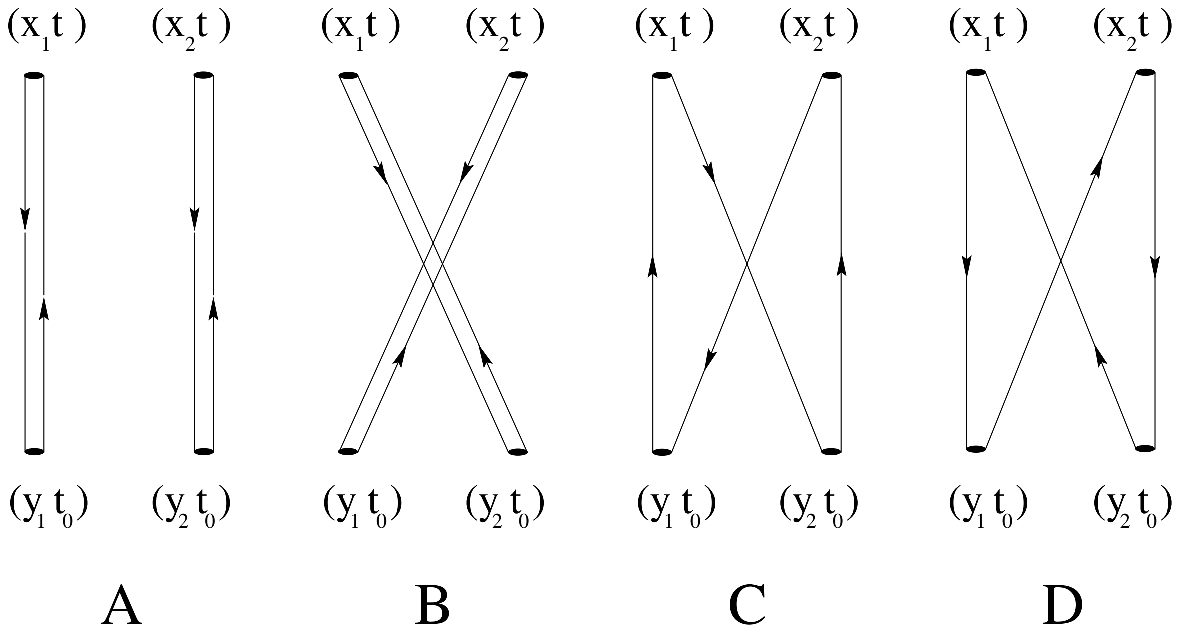


300
200
100
0
-100
-200
V [MeV]
ω
ρ
π
σ
0
0.5
1.0
1.5
2.0
r [fm]


N
N
π

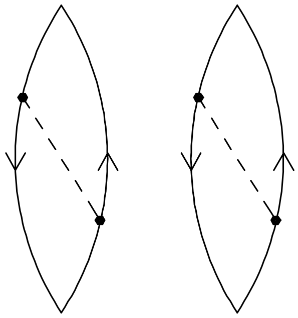


(a)
$k_0L=4.0\times2\pi$
(b)
$\delta=1.2\times2\pi$
(c)
$kL=1.6\times2\pi$
$-L/2$
0
$+L/2$

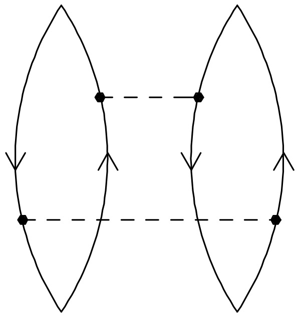


(x1 t) (x2 t)
(y1 t0) (y2 t0)
A
B
C
D

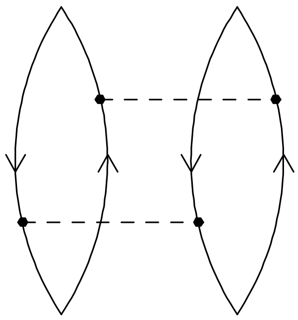
$$\langle \overset{4}{G}{}^{*}\overset{3}{G} \rangle \langle \overset{2}{G}{}^{*}\overset{1}{G} \rangle =$$

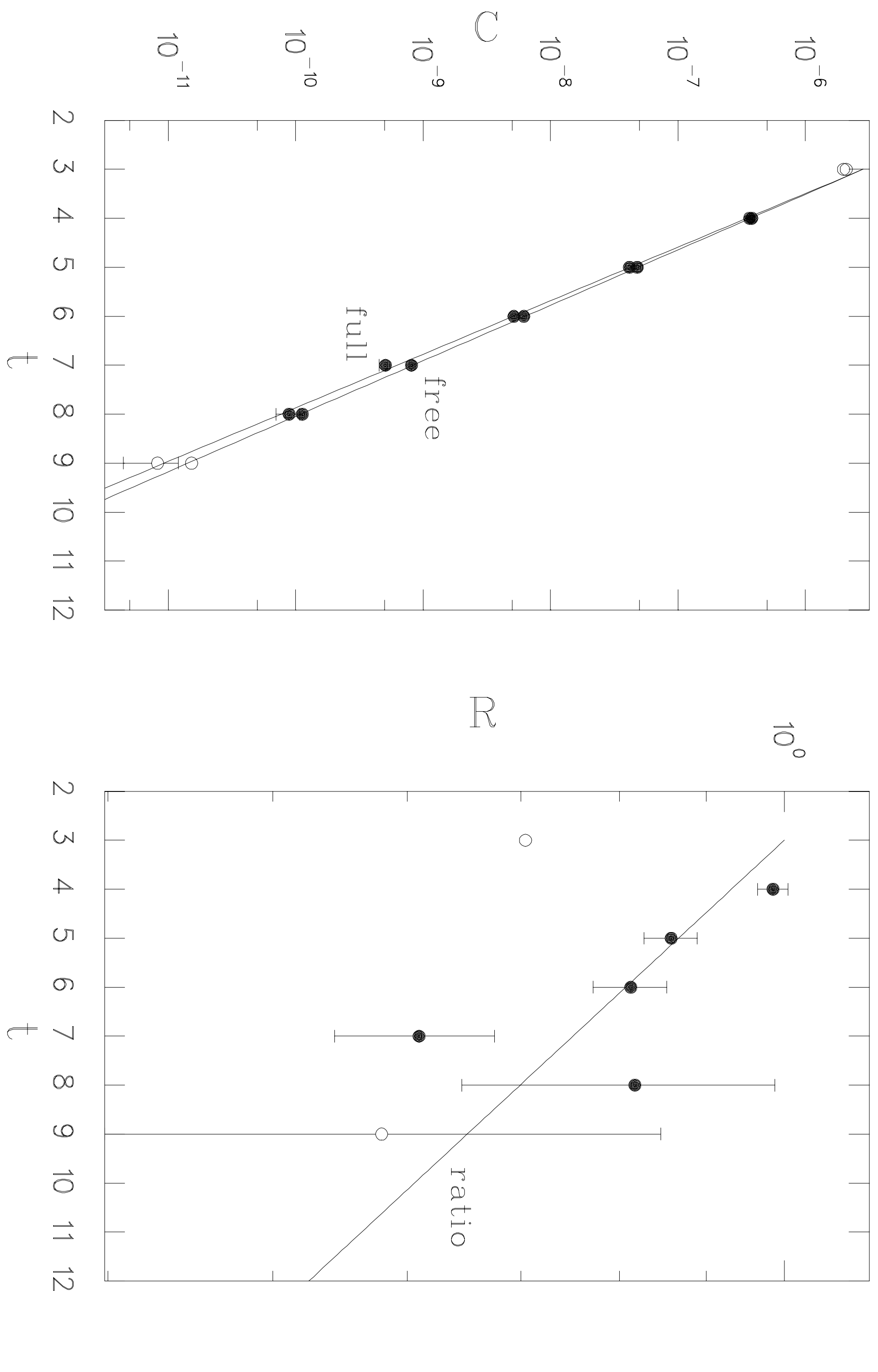


$$\langle \overset{4}{G}{}^{*}\overset{1}{G} \rangle \langle \overset{2}{G}{}^{*}\overset{3}{G} \rangle =$$

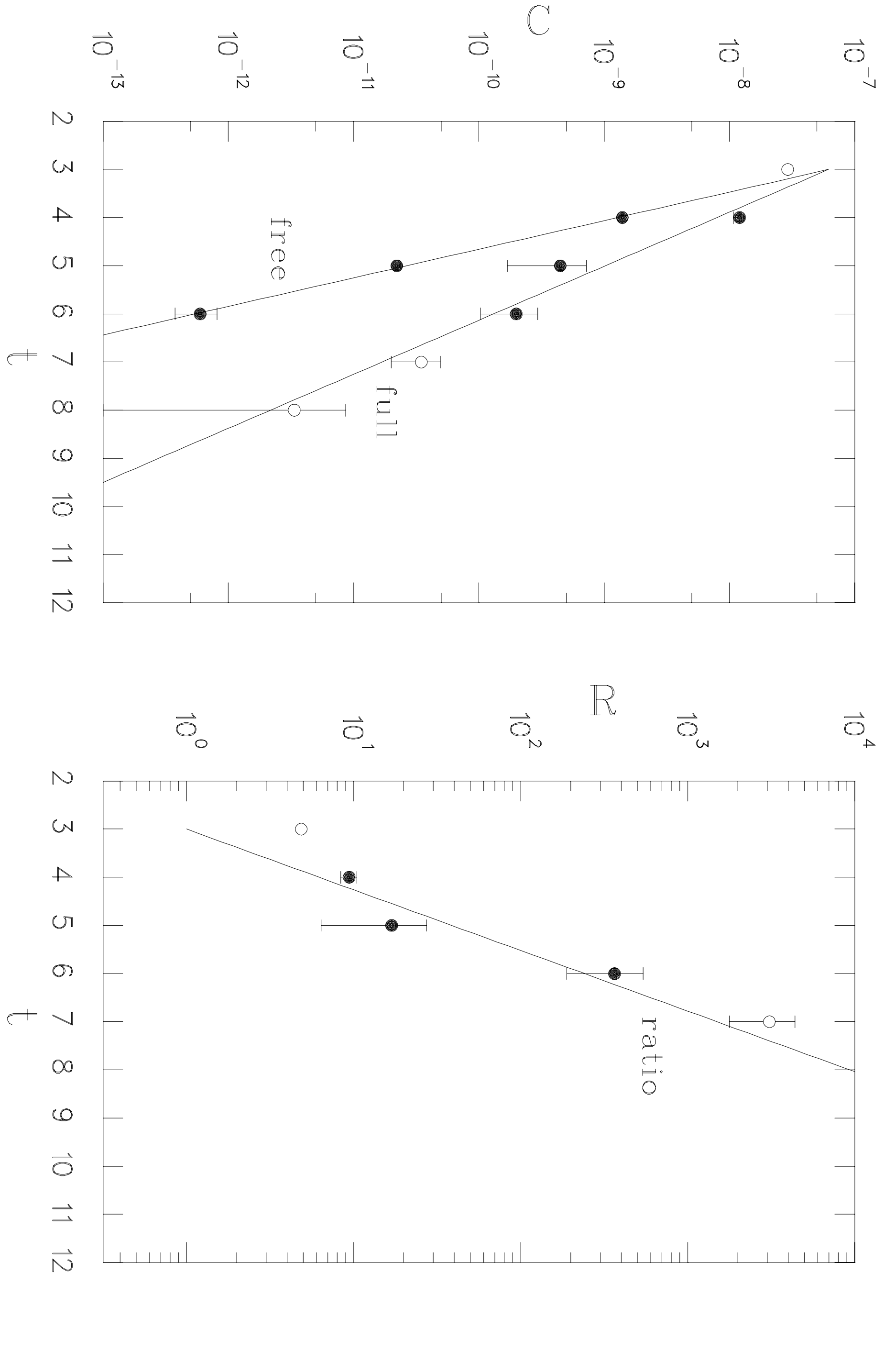


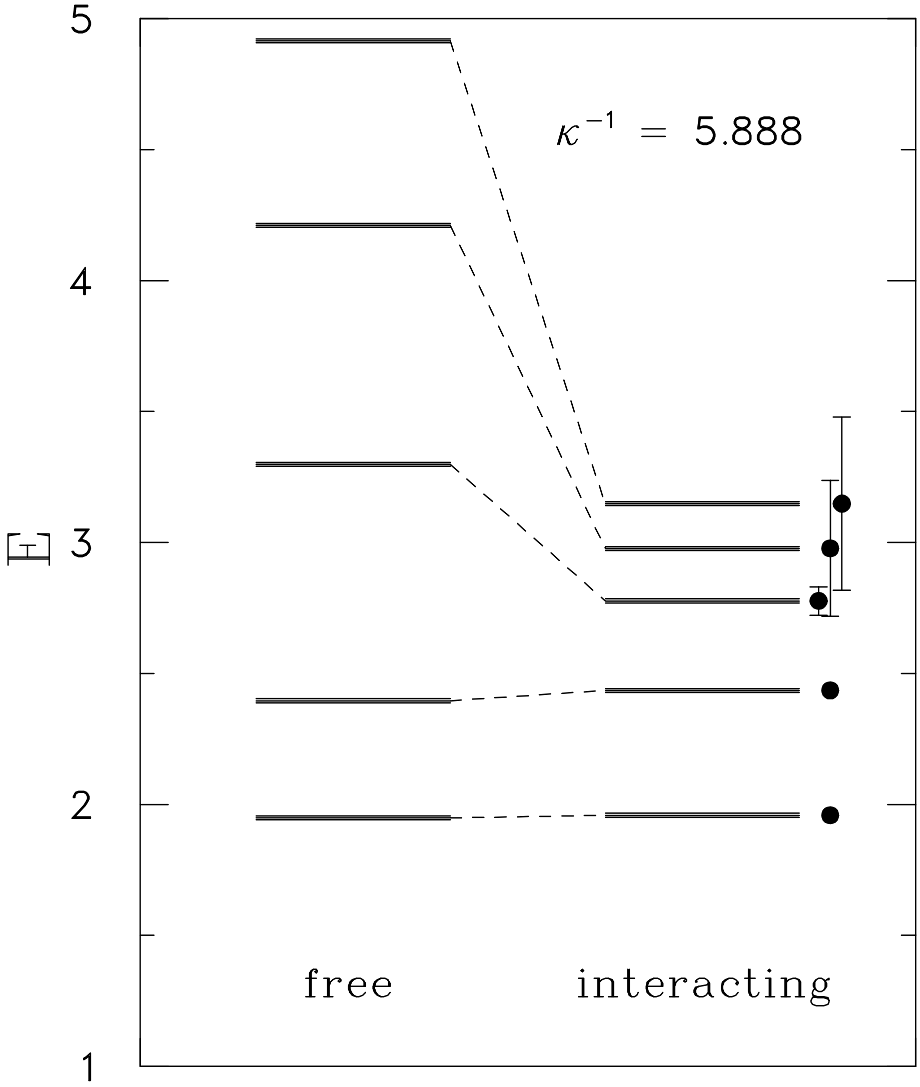
$$\langle \overset{4}{G}{}^{*}\overset{2}{G}{}^{*} \rangle \langle \overset{3}{G}\overset{1}{G} \rangle =$$



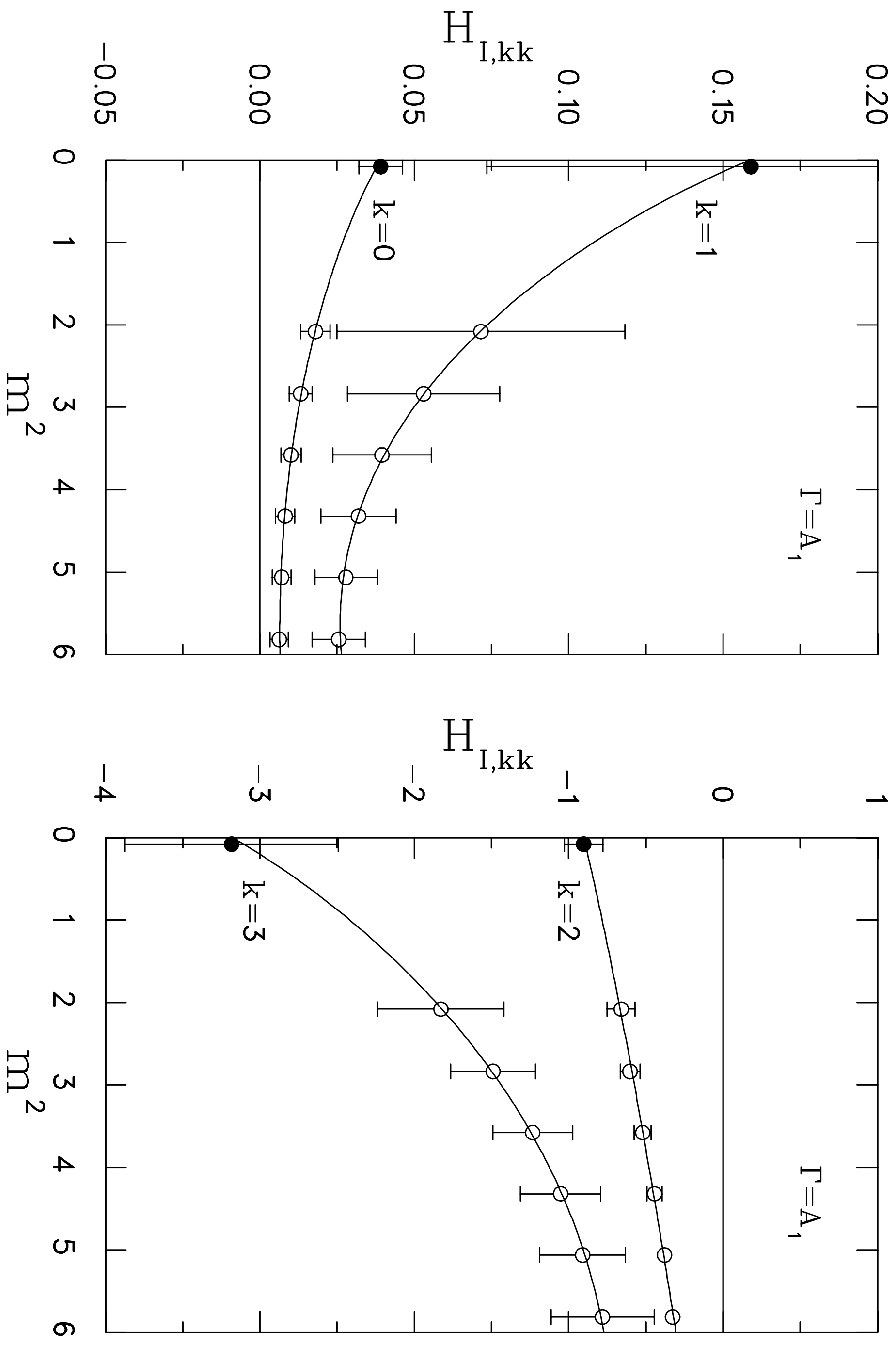


C
10^{-6}
10^{-7}
10^{-8}
10^{-9}
10^{-10}
10^{-11}
t
2 3 4 5 6 7 8 9 10 11 12
full
free
R
10^{0}
ratio

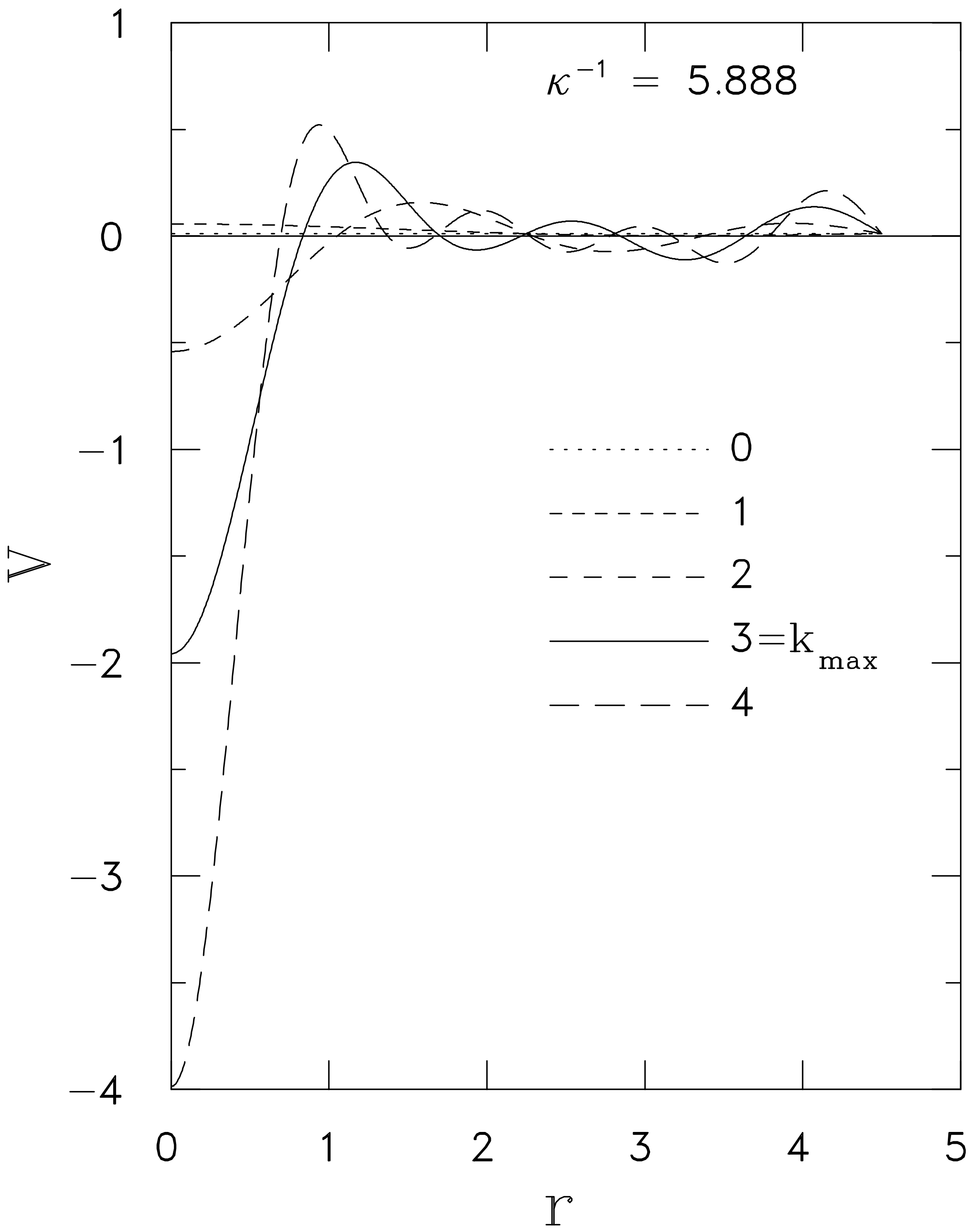

C
free
full
t
R
ratio
t



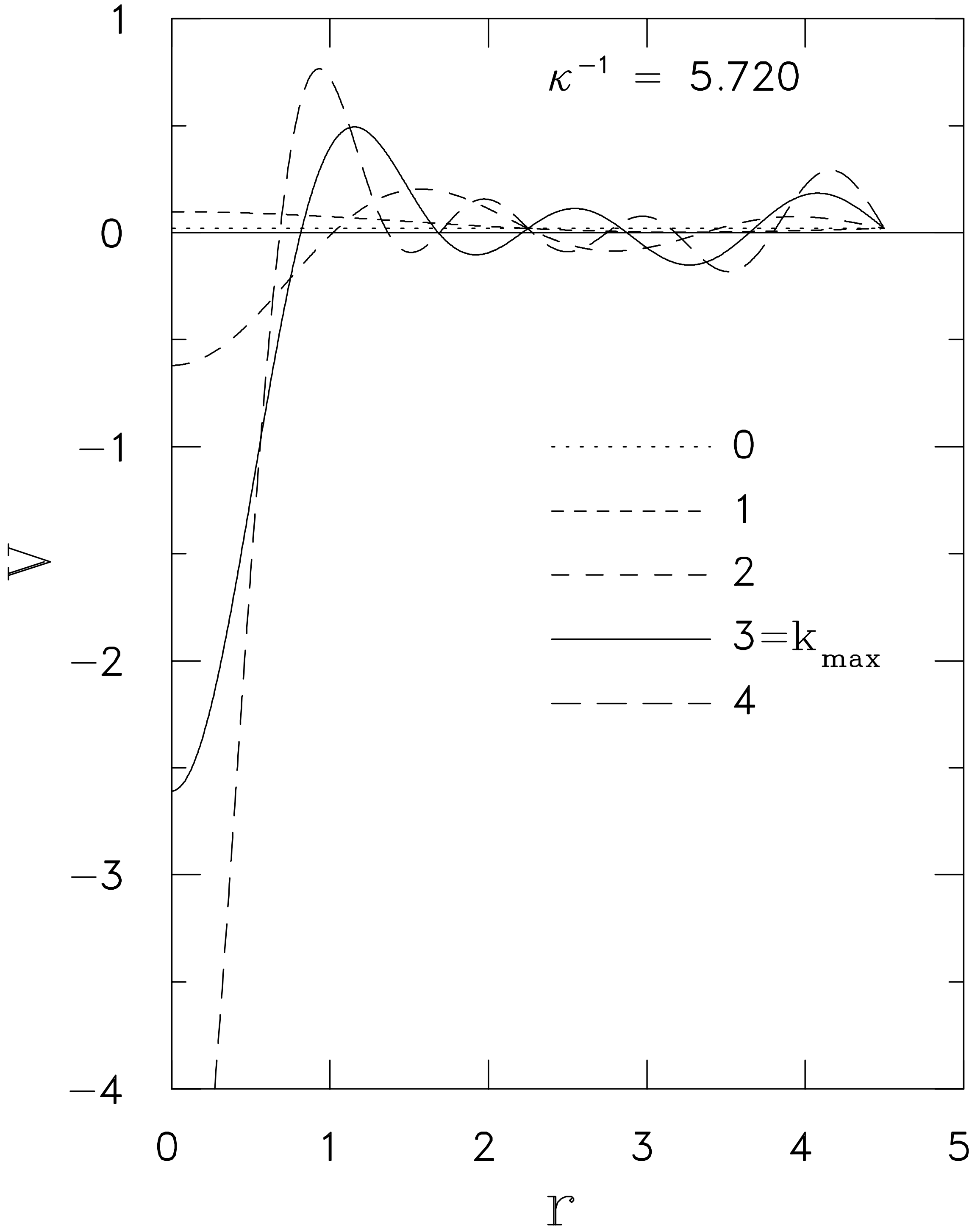
5
4
3
2
1
E
$\kappa^{-1} = 5.888$
free
interacting



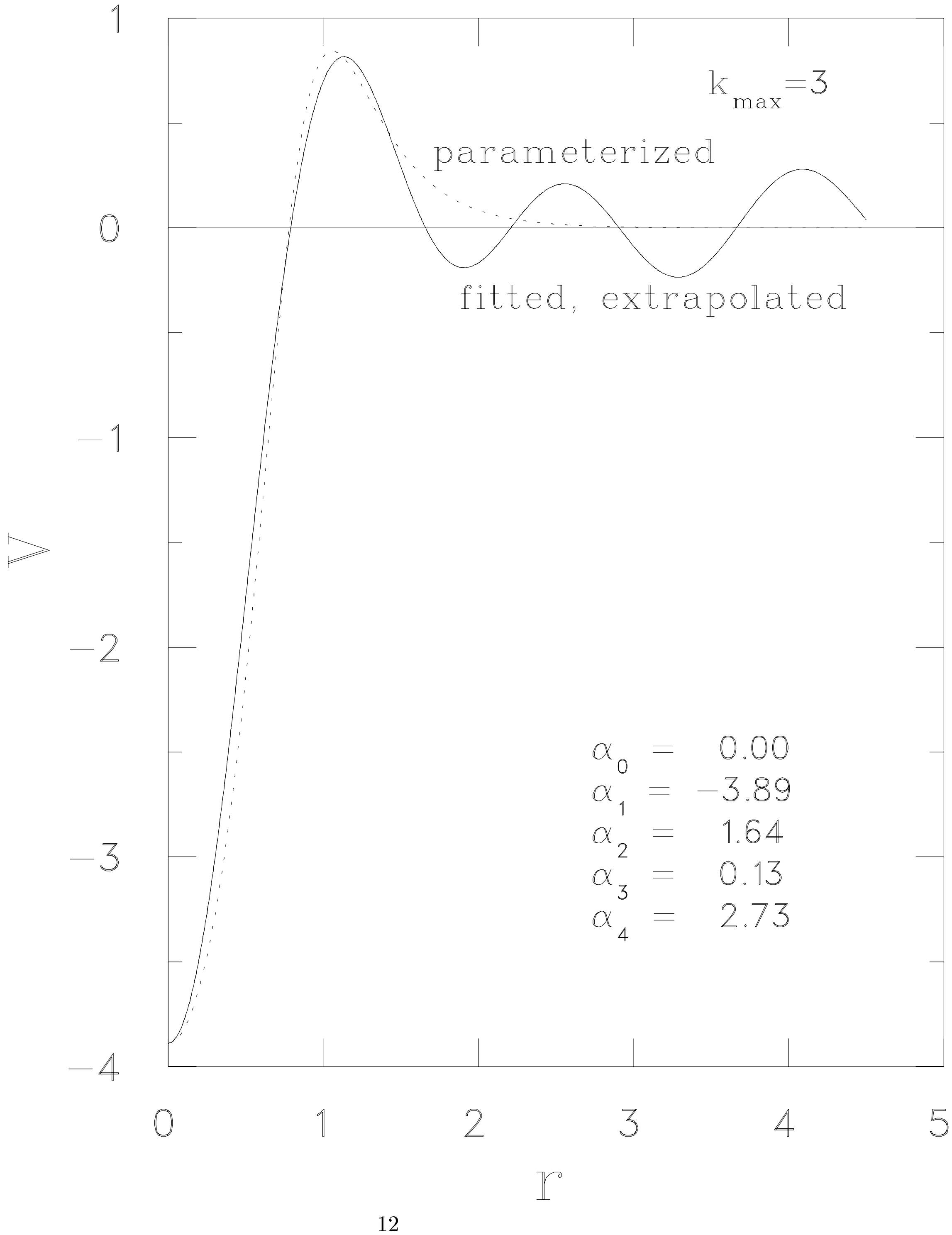
H I,kk
−0.05
0.00
0.05
0.10
0.15
0.20
k=0
k=1
Γ=A1
m 2
0
1
2
3
4
5
6
H I,kk
−4
−3
−2
−1
0
1
k=2
k=3
Γ=A1
m 2

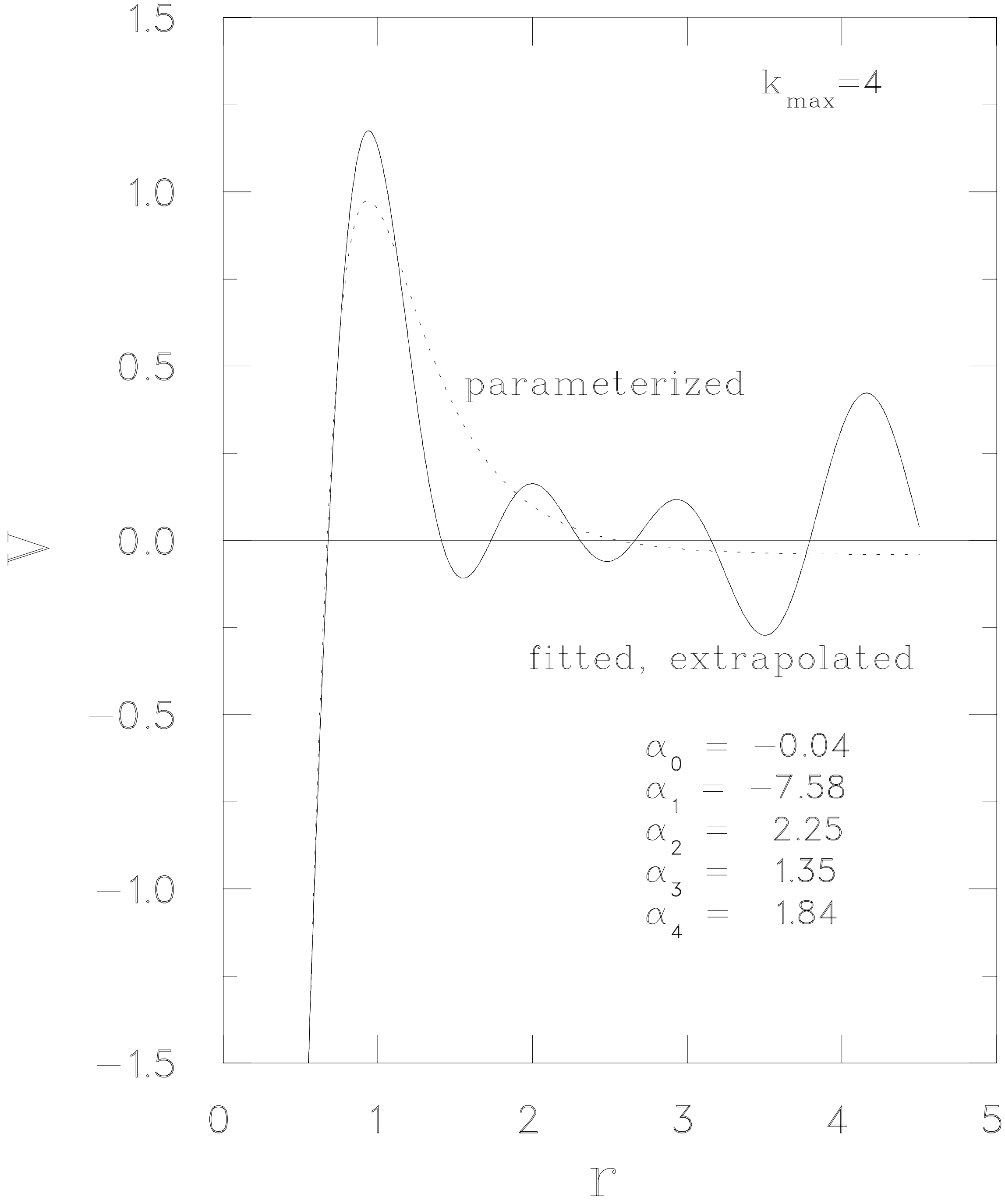


$\kappa^{-1} = 5.888$
0
1
2
$3=k_{max}$
4
V
r
1
0
−1
−2
−3
−4
0
1
2
3
4
5

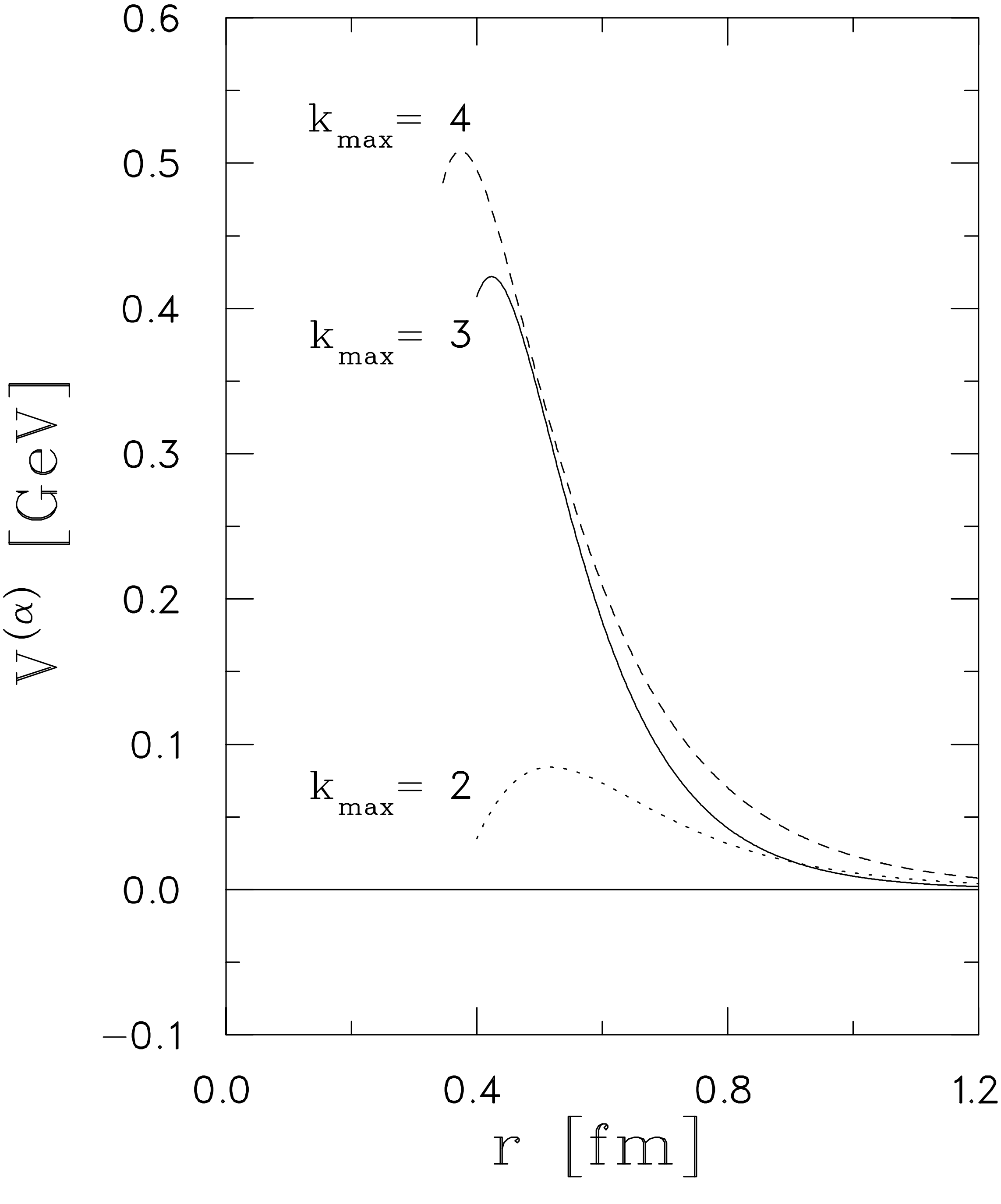


$\kappa^{-1} = 5.720$
0
1
2
$3 = k_{max}$
4
V
r
1
0
−1
−2
−3
−4
0
1
2
3
4
5

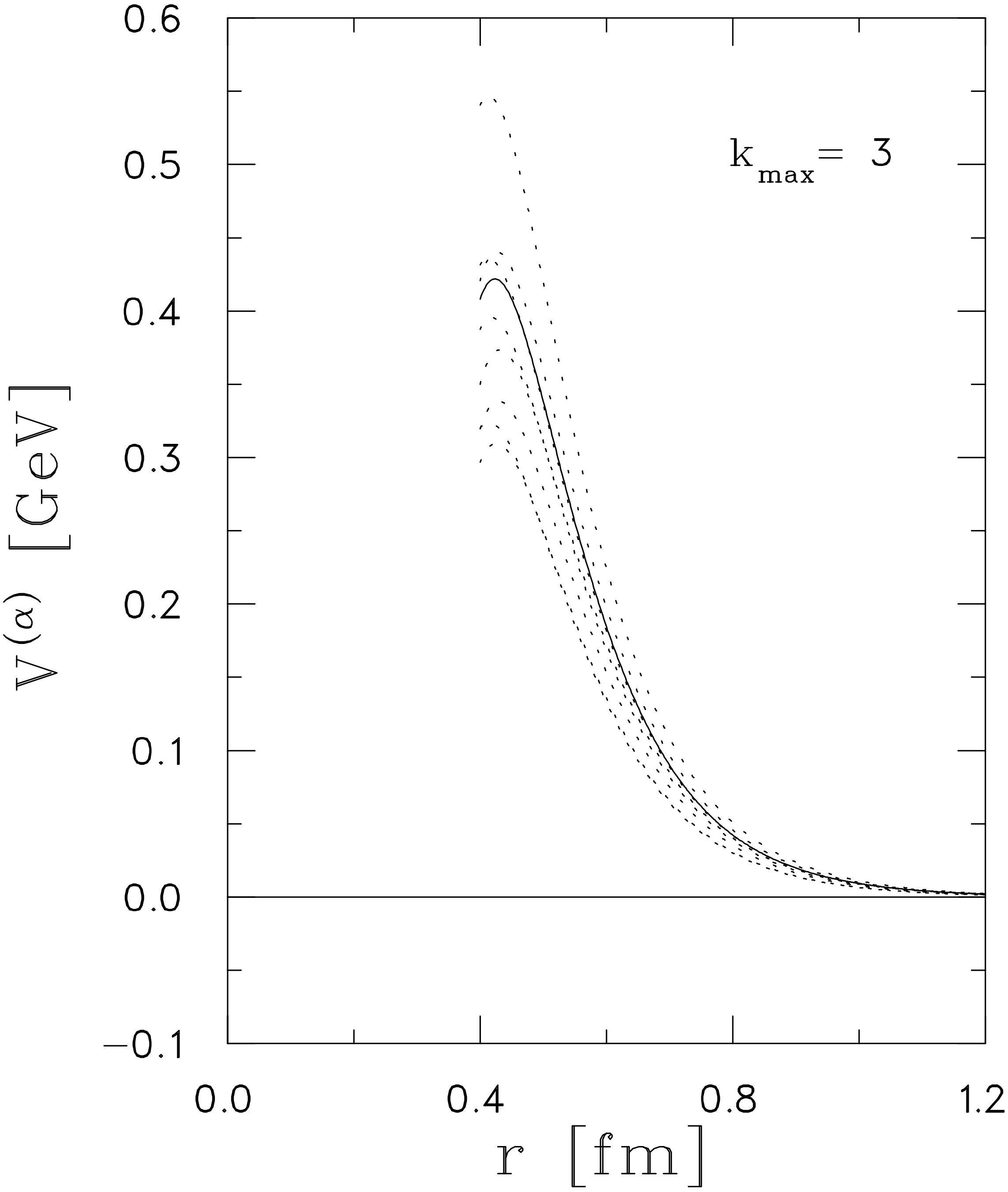

$k_{max}=3$
parameterized
fitted, extrapolated
$\alpha_0 = 0.00$
$\alpha_1 = -3.89$
$\alpha_2 = 1.64$
$\alpha_3 = 0.13$
$\alpha_4 = 2.73$
V
r
1
0
−1
−2
−3
−4
0
1
2
3
4
5



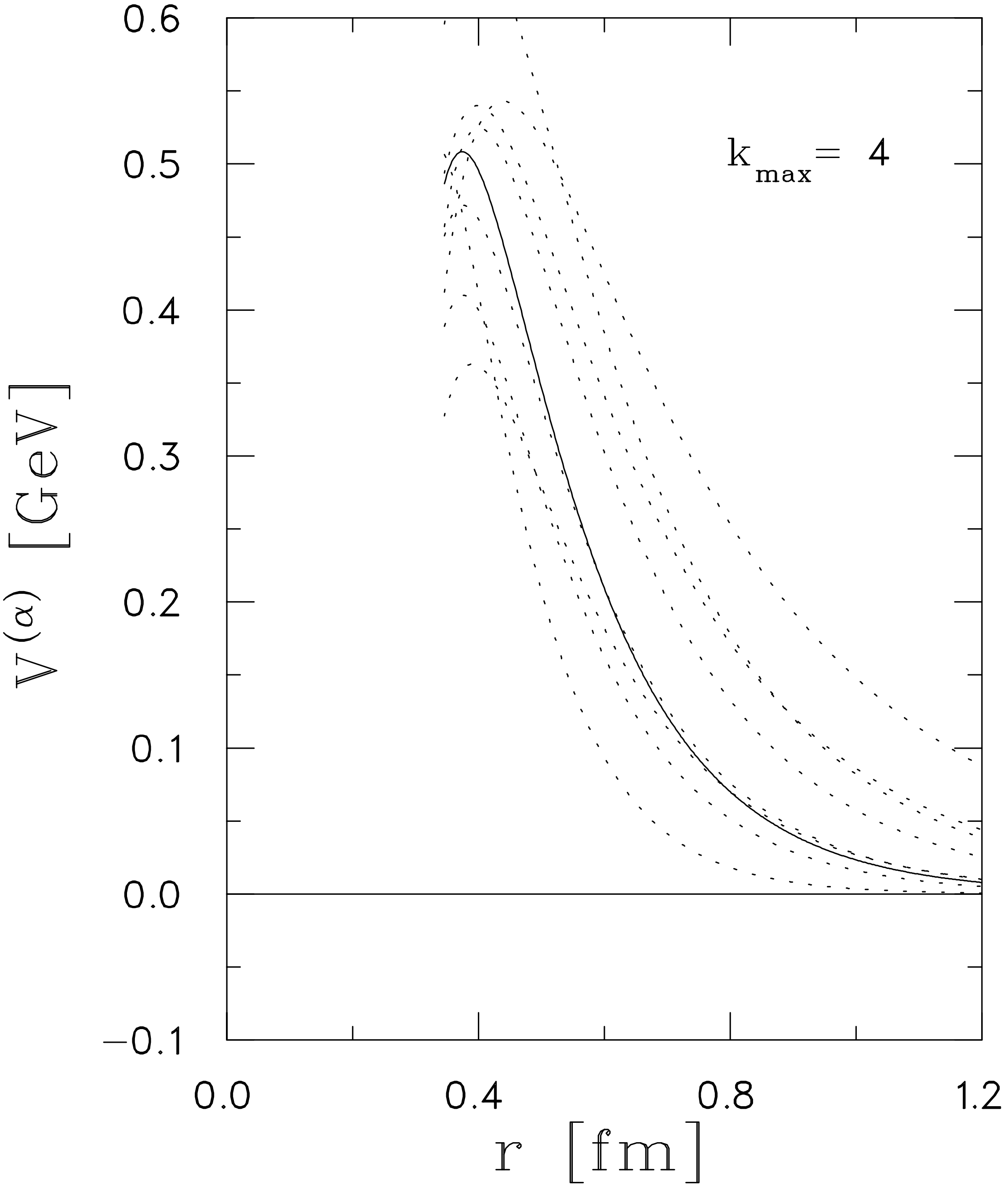
1.5
1.0
0.5
0.0
−0.5
−1.0
−1.5
V
0
1
2
3
4
5
r
$k_{max}=4$
parameterized
fitted, extrapolated
$\alpha_0 = -0.04$
$\alpha_1 = -7.58$
$\alpha_2 = 2.25$
$\alpha_3 = 1.35$
$\alpha_4 = 1.84$



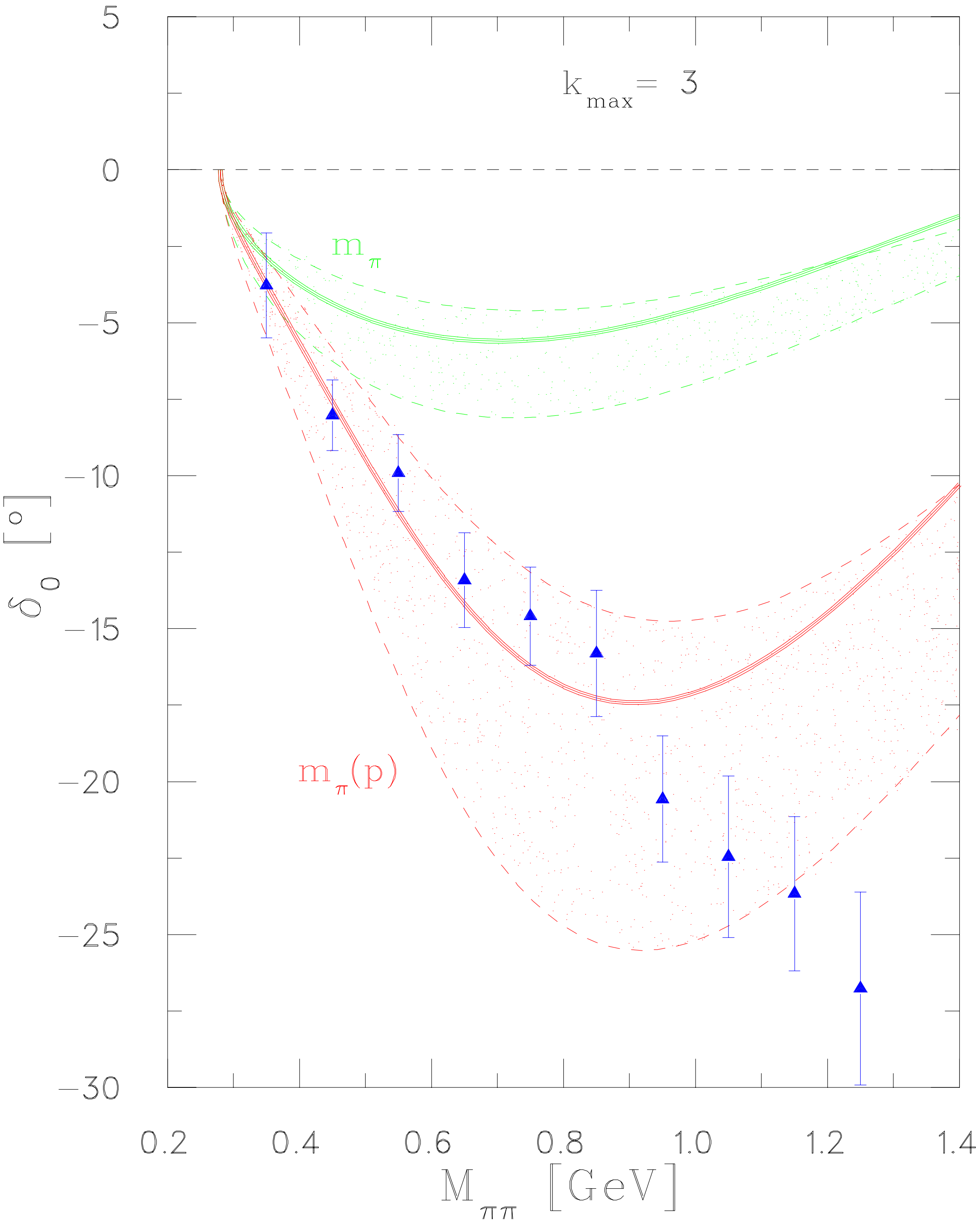
0.6
0.5
0.4
0.3
0.2
0.1
0.0
−0.1
$V^{(\alpha)}$ [GeV]
k_{max}= 4
k_{max}= 3
k_{max}= 2
0.0
0.4
0.8
1.2
r [fm]



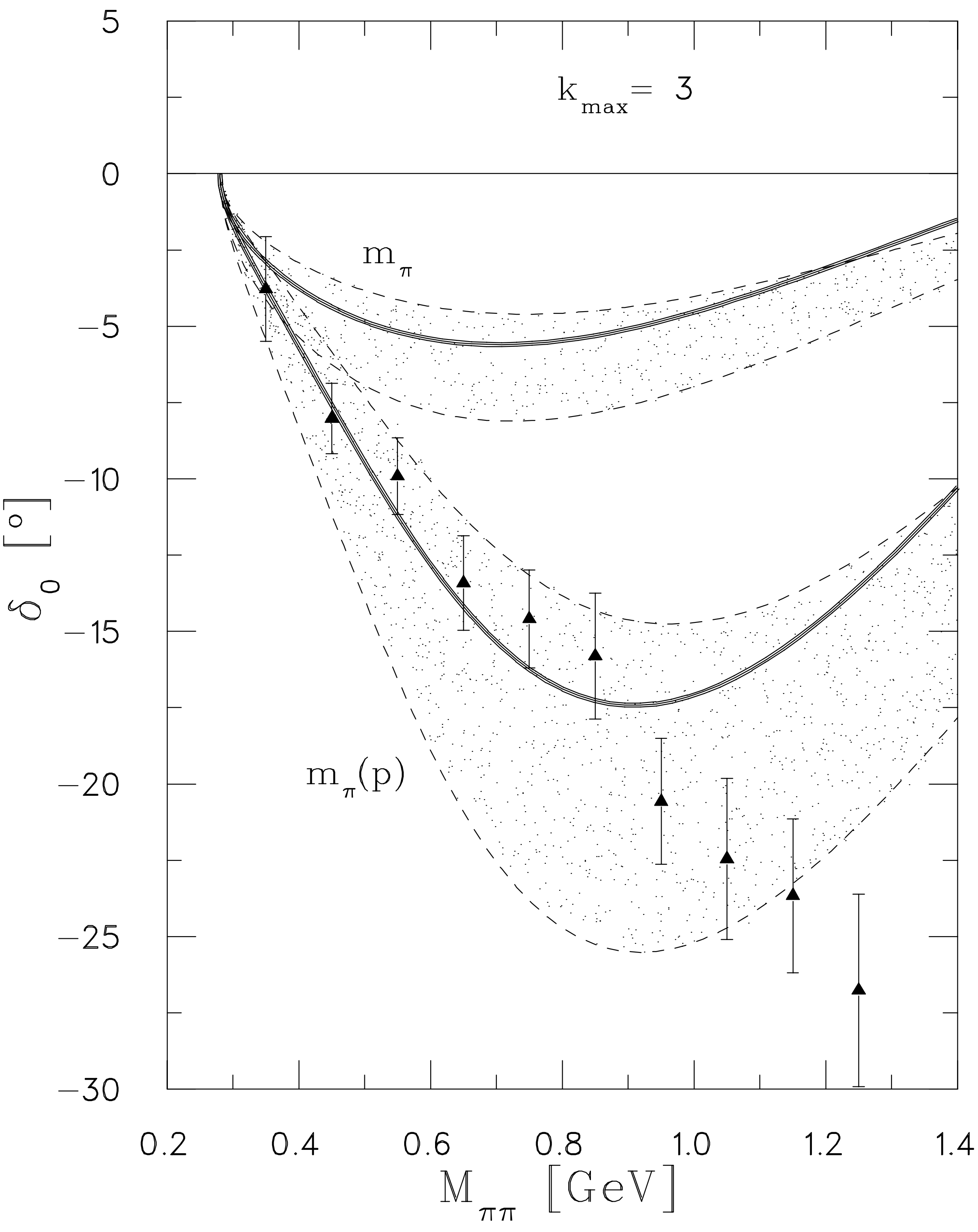
0.6
0.5
0.4
0.3
0.2
0.1
0.0
−0.1
0.0
0.4
0.8
1.2
k_{max}= 3
$V^{(\alpha)}$ [GeV]
r [fm]



0.6
0.5
0.4
0.3
0.2
0.1
0.0
−0.1
0.0
0.4
0.8
1.2
$V^{(\alpha)}$ [GeV]
r [fm]
k_{max}= 4



5
0
−5
−10
−15
−20
−25
−30
0.2
0.4
0.6
0.8
1.0
1.2
1.4
$k_{max} = 3$
m_π
$m_\pi(p)$
δ_0 [°]
$M_{\pi\pi}$ [GeV]



$k_{max}= 3$
m_π
$m_\pi(p)$
δ_0 [°]
$M_{\pi\pi}$ [GeV]
5
0
−5
−10
−15
−20
−25
−30
0.2
0.4
0.6
0.8
1.0
1.2
1.4