

h	$f(k+h)$	$f(k-h)$	Δf	$\partial f/\partial Kp_V(fw)$	$\partial f/\partial Kp_V(cen)$
10^{-1}	3.01189494	3.00940147	0.0009618698185	0.009618698185	0.01246735312
10^{-2}	3.011097008	3.010531428	0.0001639373236	0.01639373236	0.02827897838
10^{-3}	3.01109119	3.010772728	0.0001581192724	0.1581192724	0.1592308569
10^{-4}	3.010948981	3.010917138	1.591018287e-05	0.1591018287	0.1592129483
10^{-5}	3.010934663	3.010931478	1.592020833e-06	0.1592020833	0.1592128697
10^{-6}	3.01093323	3.010932917	1.592122145e-07	0.1592122145	0.156411845
10^{-7}	3.010933092	3.010933055	2.152297141e-08	0.2152297141	0.1871977018
10^{-8}	3.010933078	3.010933069	7.209699504e-09	0.7209699504	0.4398919007
10^{-9}	3.010933071	3.01093307	1.583990716e-10	0.1583990716	0.1583244646
10^{-10}	3.010933071	3.010933071	2.039968194e-11	0.2039968194	0.1533395633
10^{-11}	3.010933071	3.010933076	1.012523398e-13	0.01012523398	-280.0360388
10^{-12}	3.010933071	3.010933071	4.982236845e-12	4.982236845	2.488009798
10^{-13}	3.010933071	3.010933071	6.217248938e-15	0.06217248938	0.05995204333
10^{-14}	3.010933071	3.010933071	5.000000414e-12	500.0000414	251.7763775
10^{-15}	3.010933071	3.010933076	4.994227254e-12	4994.227254	-2800382.592
10^{-16}	3.010933071	3.010933071	0	0	0
10^{-17}	3.010933071	3.010933071	0	0	0
10^{-18}	3.010933071	3.010933071	0	0	0
10^{-19}	3.010933071	3.010933071	0	0	0
10^{-20}	3.010933071	3.010933071	0	0	0
10^{-21}	3.010933071	3.010933071	0	0	0
10^{-22}	3.010933071	3.010933071	0	0	0

Table 1: Step size study for Kp_V, gains Kph0.0544697_Kih0.0076355_Kpth1.6802_Kith2.01171_Kdth-1.64786_KpV2.05882