h	$f(k+h)$	$f(k-h)$	Δf	$\partial f/\partial Kp\_th(fw)$	$\partial f/\partial Kp\_th(cen)$
10^{-1}	3.225921734	4.62937925	0.214988663	2.14988663	-7.017287583
10^{-2}	3.032611797	2.990846048	0.02167872644	2.167872644	2.088287455
10^{-3}	3.013094184	3.008515778	0.002161113578	2.161113578	2.289202923
10^{-4}	3.011251202	3.010367519	0.0003181310891	3.181310891	4.418411517
10^{-5}	3.010779072	3.01049124	-0.0001539984135	-15.39984135	14.39161911
10^{-6}	3.010917785	3.010948338	-1.528550484e-05	-15.28550484	-15.27638943
10^{-7}	3.010931543	3.010934598	-1.528034309e-06	-15.28034309	-15.27916433
10^{-8}	3.010932918	3.010933223	-1.527919866e-07	-15.27919866	-15.27921378
10^{-9}	3.010933055	3.010933091	-1.528011229e-08	-15.28011229	-18.08080974
10^{-10}	3.010933069	3.010933078	-1.524446791e-09	-15.24446791	-43.2741798
10^{-11}	3.01093307	3.010933071	-1.50470747e-10	-15.0470747	-15.0470969
10^{-12}	3.010933071	3.010933071	-1.393773985e-11	-13.93773985	-16.53033266
10^{-13}	3.010933071	3.010933071	1.554312234e-13	1.554312234	0.8659739592
10^{-14}	3.010933071	3.010933071	3.5971226e-14	3.5971226	2.087219286
10^{-15}	3.010933071	3.010933071	2.398081733e-14	23.98081733	20.87219286
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_th, gains `Kph0.0544697_Kih0.0076355_Kpth1.6802_Kith2.01171_Kdth-1.64786_KpV2.0588`