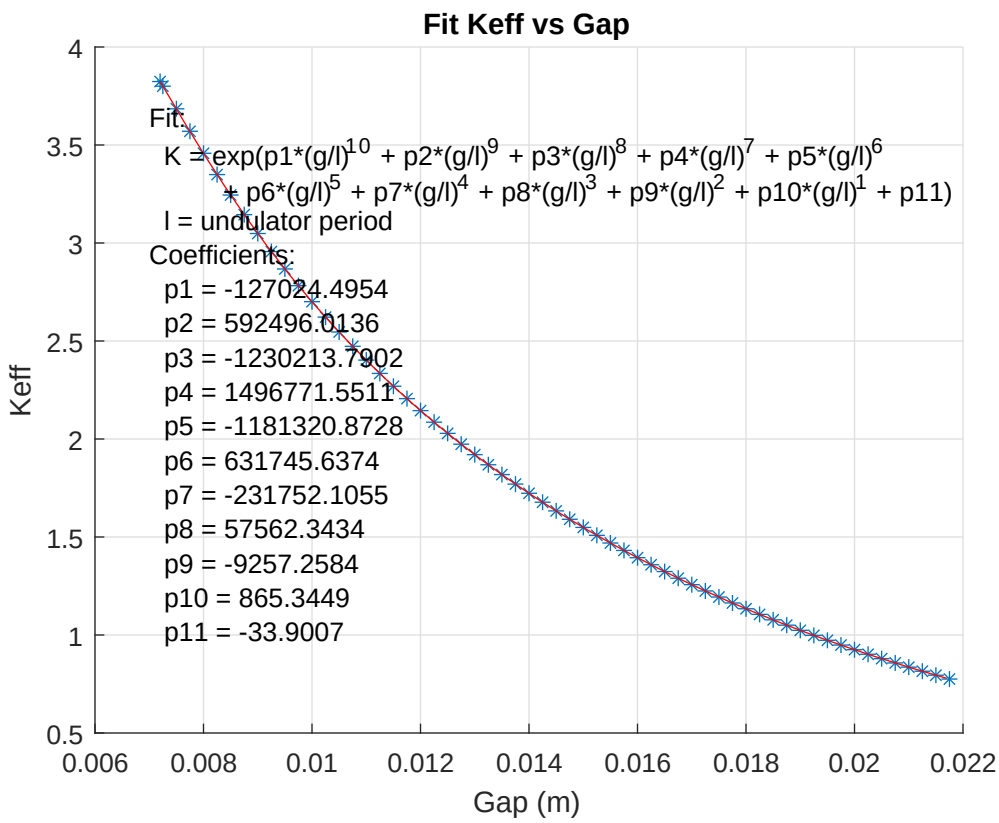
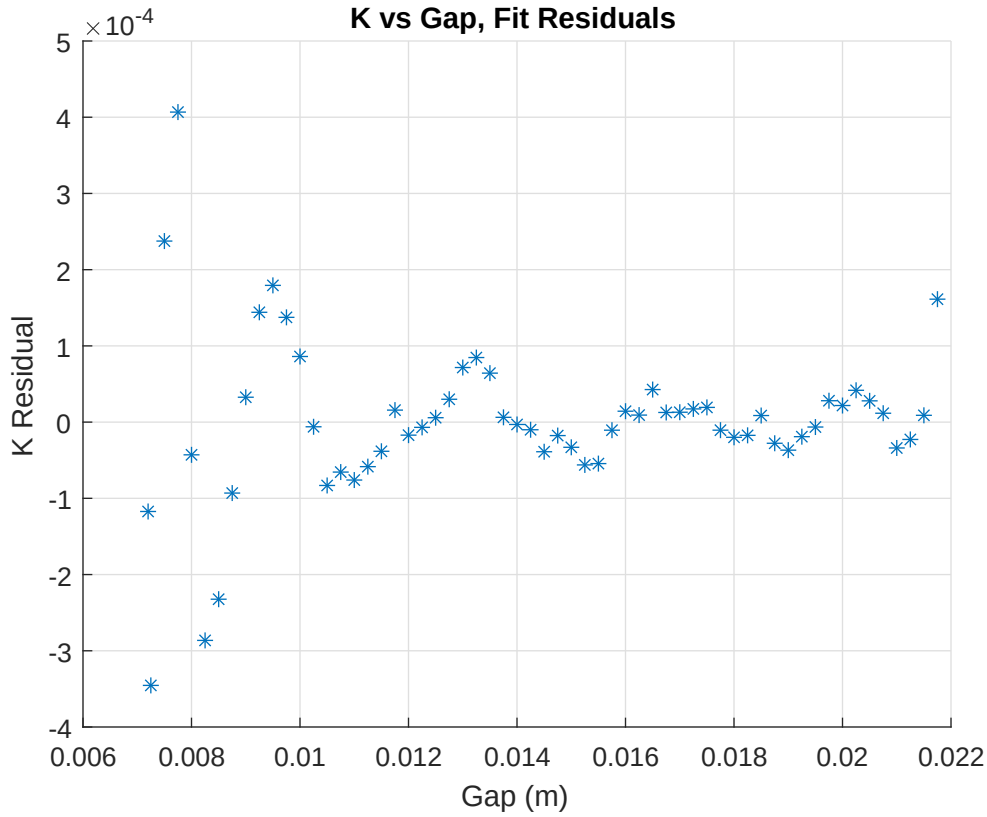
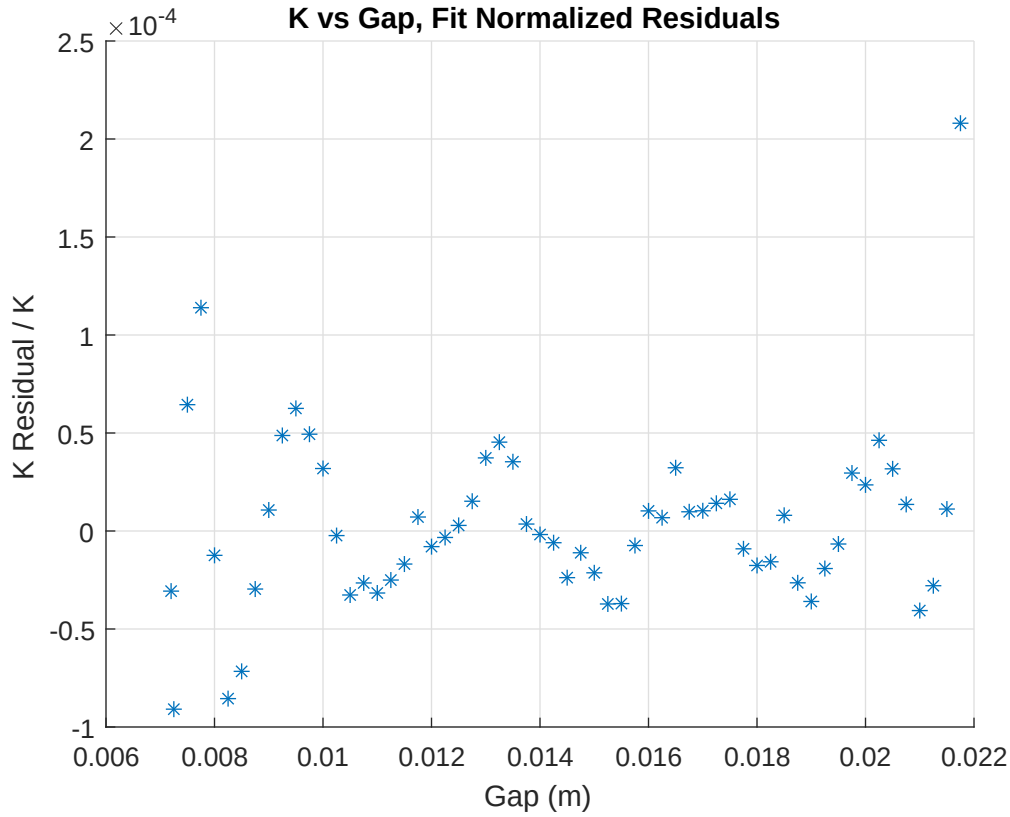
SLAC Magnetic Measurements#
Date: 12-15-2016#
Time: 11:30:30#


Fit Keff vs Gap
Fit:
K = exp(p1*(g/l)^10 + p2*(g/l)^9 + p3*(g/l)^8 + p4*(g/l)^7 + p5*(g/l)^6
+ p6*(g/l)^5 + p7*(g/l)^4 + p8*(g/l)^3 + p9*(g/l)^2 + p10*(g/l)^1 + p11)
l = undulator period
Coefficients:
p1 = -127024.4954
p2 = 592496.0136
p3 = -1230213.7902
p4 = 1496771.5511
p5 = -1181320.8728
p6 = 631745.6374
p7 = -231752.1055
p8 = 57562.3434
p9 = -9257.2584
p10 = 865.3449
p11 = -33.9007
Keff
Gap (m)
4
3.5
3
2.5
2
1.5
1
0.5
0.006
0.008
0.01
0.012
0.014
0.016
0.018
0.02
0.022


K vs Gap, Fit Residuals
×10^-4
5
4
3
2
1
0
-1
-2
-3
-4
K Residual
0.006
0.008
0.01
0.012
0.014
0.016
0.018
0.02
0.022
Gap (m)


K vs Gap, Fit Normalized Residuals
×10^-4
2.5
2
1.5
1
0.5
0
-0.5
-1
K Residual / K
0.006
0.008
0.01
0.012
0.014
0.016
0.018
0.02
0.022
Gap (m)