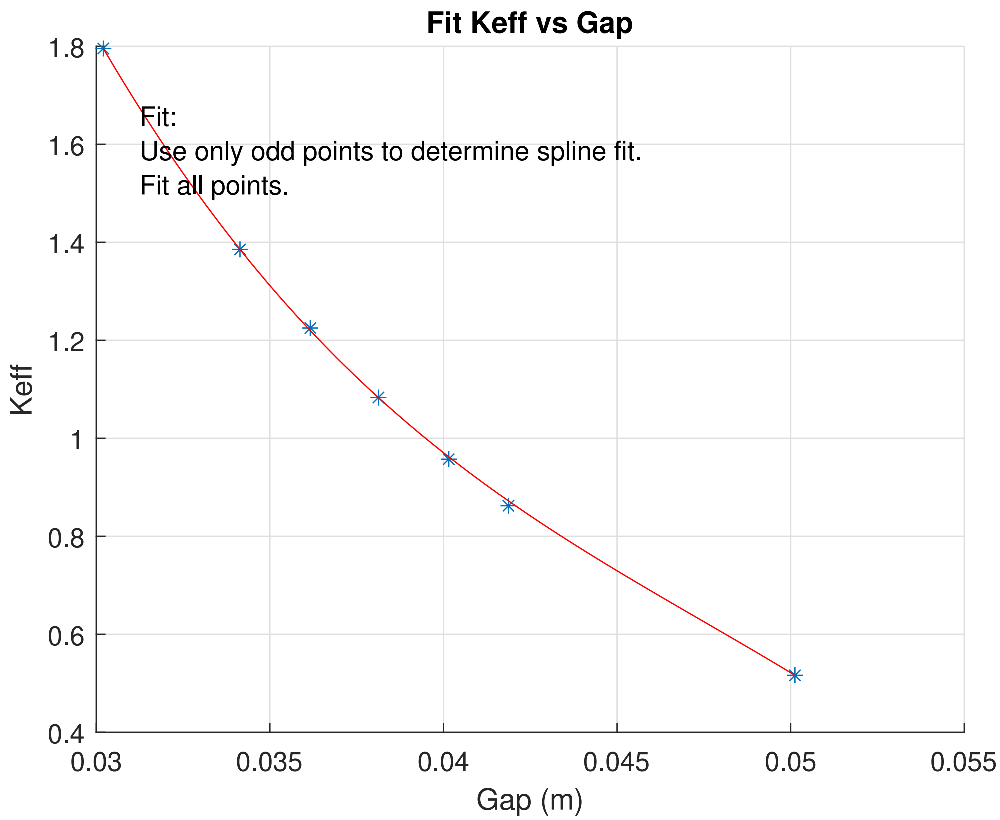
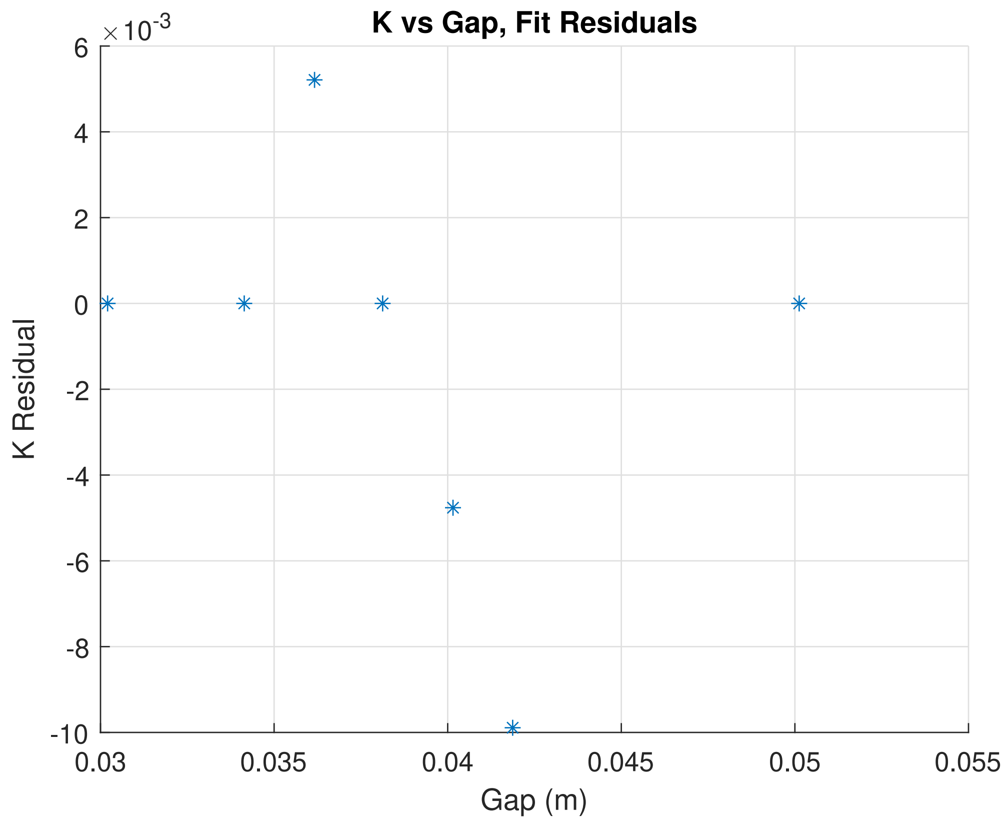
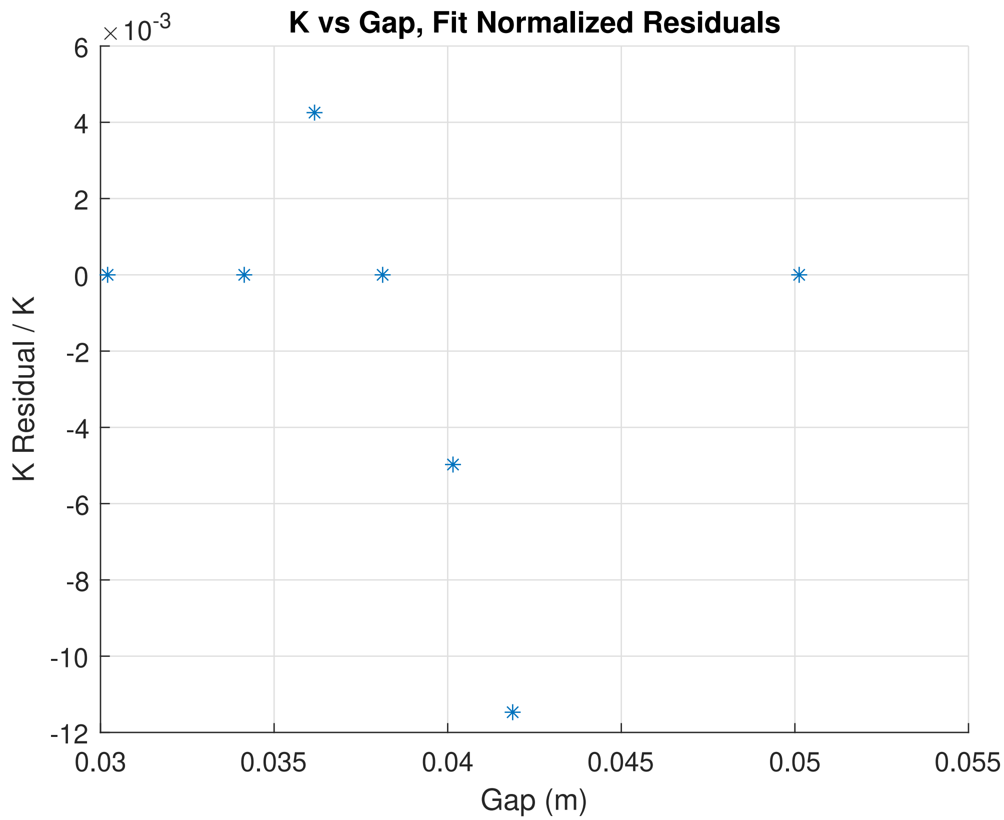
SLAC Magnetic Measurements#
Date: 05-18-2021#
Time: 14:34:50#

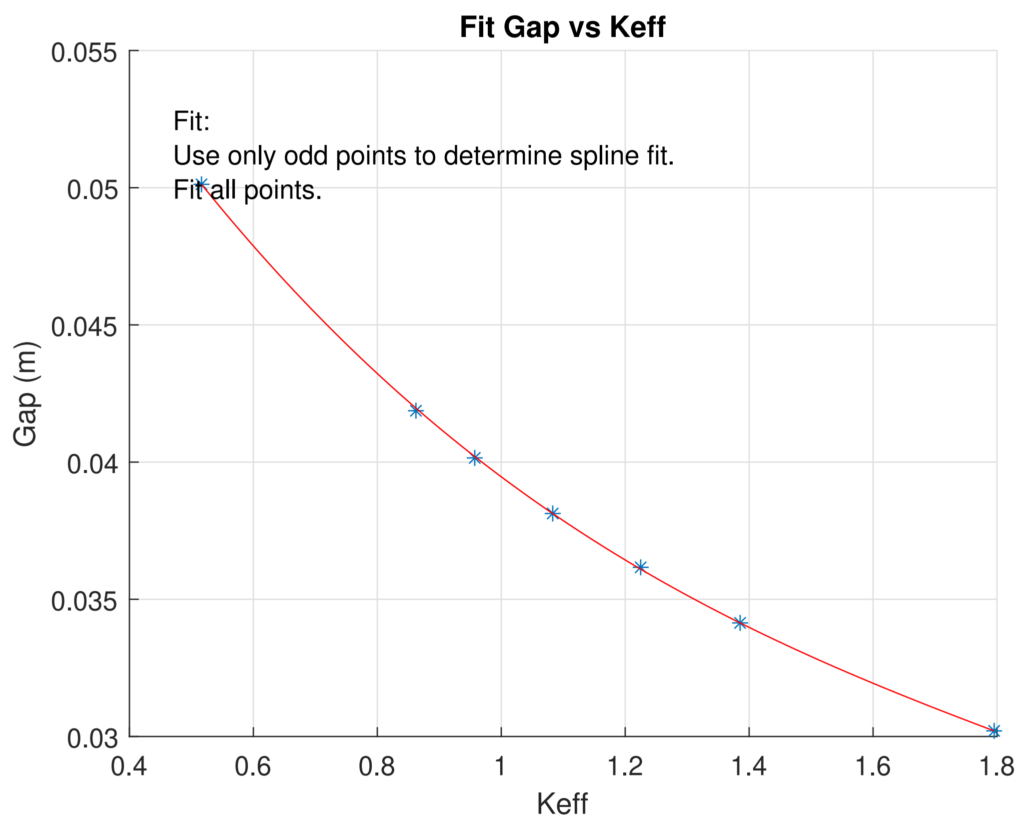


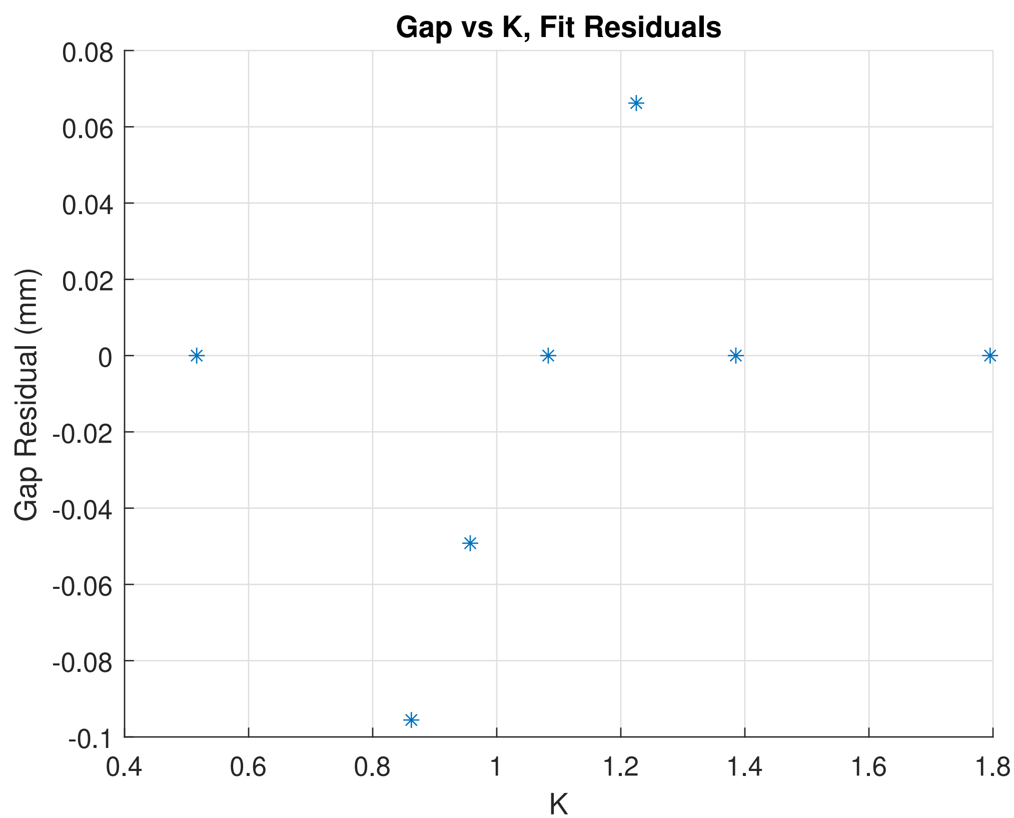
Fit Keff vs Gap
Fit:
Use only odd points to determine spline fit.
Fit all points.
Keff
Gap (m)
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.03
0.035
0.04
0.045
0.05
0.055

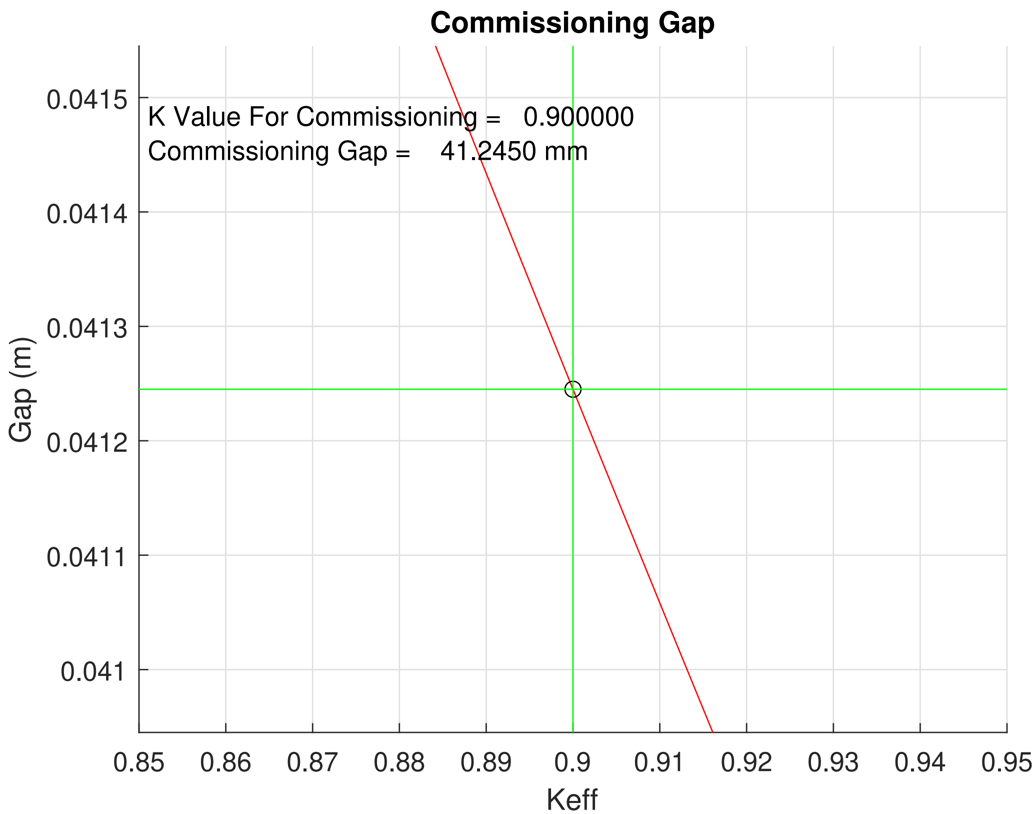

K vs Gap, Fit Residuals
×10^-3
6
4
2
0
-2
-4
-6
-8
-10
K Residual
0.03
0.035
0.04
0.045
0.05
0.055
Gap (m)

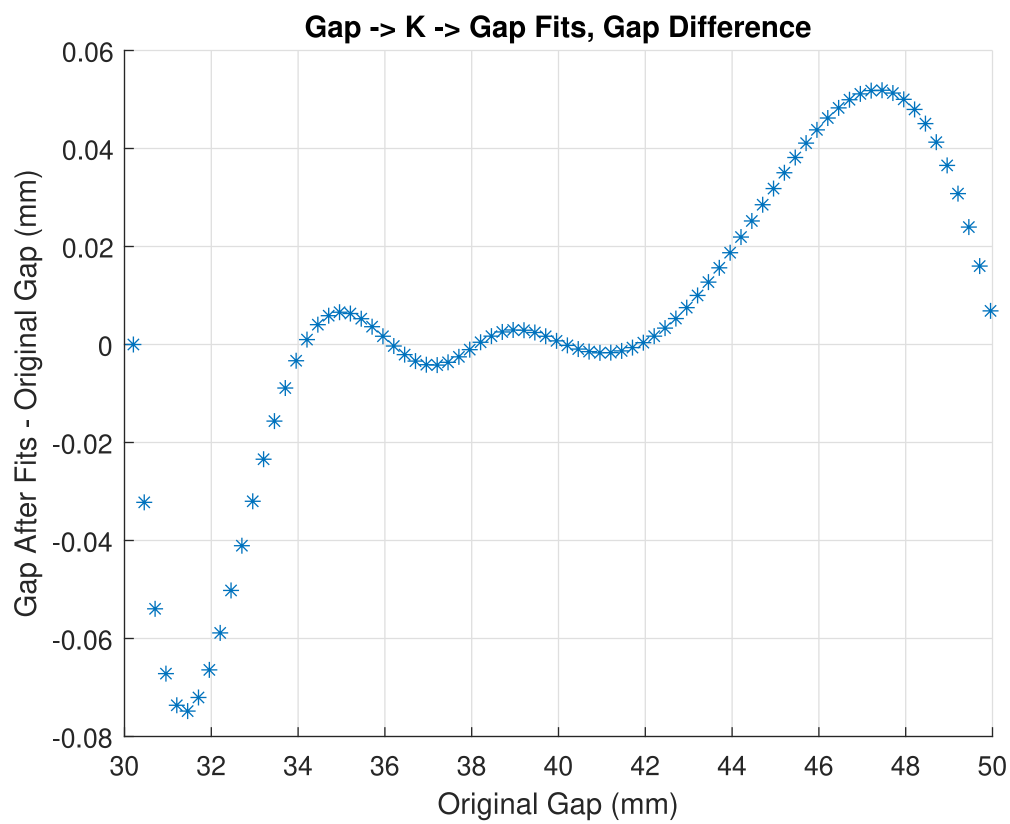


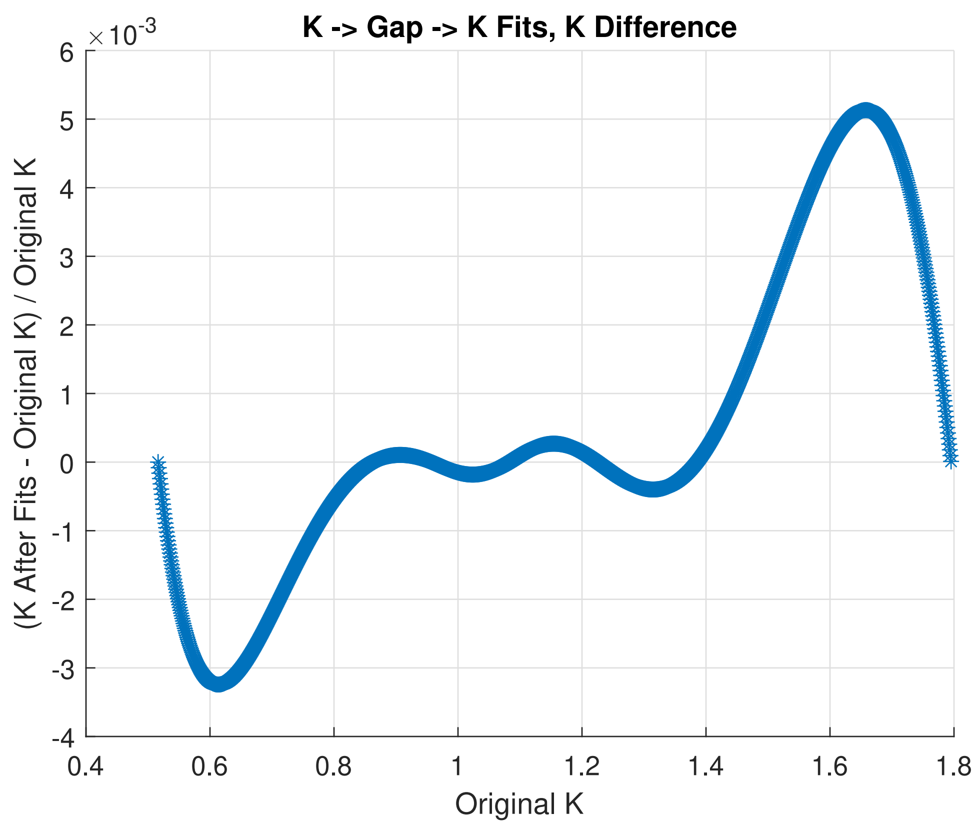
K vs Gap, Fit Normalized Residuals
×10^-3
6
4
2
0
-2
-4
-6
-8
-10
-12
K Residual / K
0.03
0.035
0.04
0.045
0.05
0.055
Gap (m)

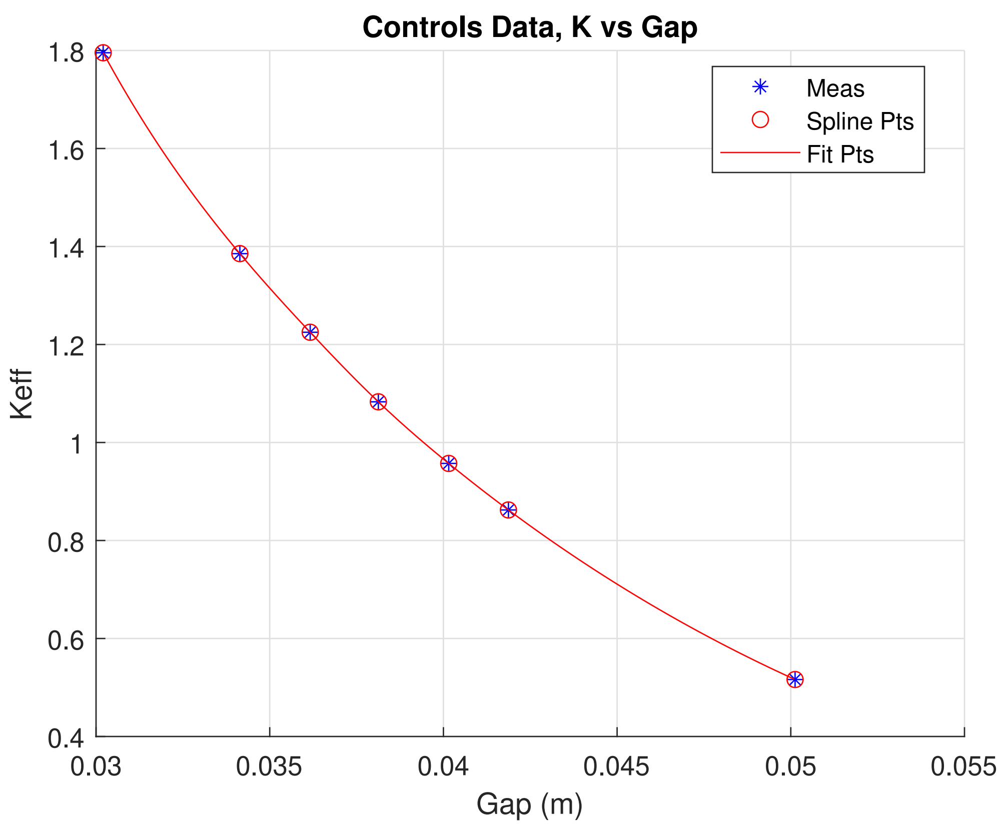

Fit Gap vs Keff
Fit:
Use only odd points to determine spline fit.
Fit all points.
Gap (m)
Keff
0.055
0.05
0.045
0.04
0.035
0.03
0.4
0.6
0.8
1
1.2
1.4
1.6
1.8

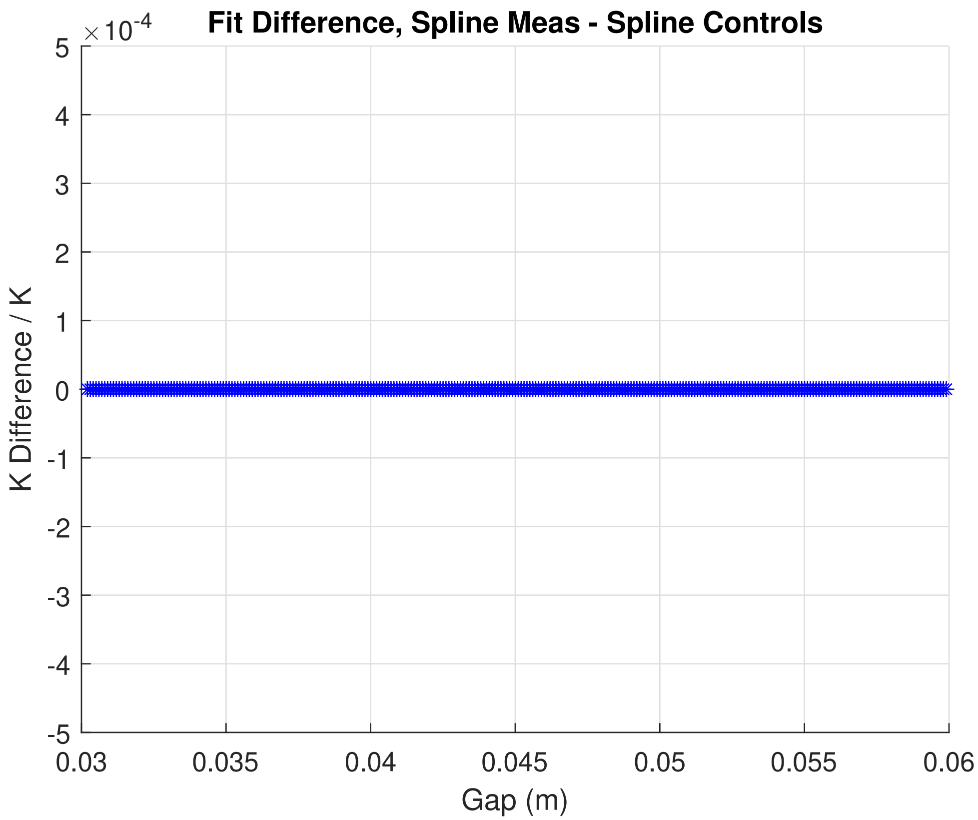

Gap vs K, Fit Residuals
Gap Residual (mm)
K
0.08
0.06
0.04
0.02
0
-0.02
-0.04
-0.06
-0.08
-0.1
0.4
0.6
0.8
1
1.2
1.4
1.6
1.8


Commissioning Gap
K Value For Commissioning = 0.900000
Commissioning Gap = 41.2450 mm
Gap (m)
0.0415
0.0414
0.0413
0.0412
0.0411
0.041
0.85
0.86
0.87
0.88
0.89
0.9
0.91
0.92
0.93
0.94
0.95
Keff

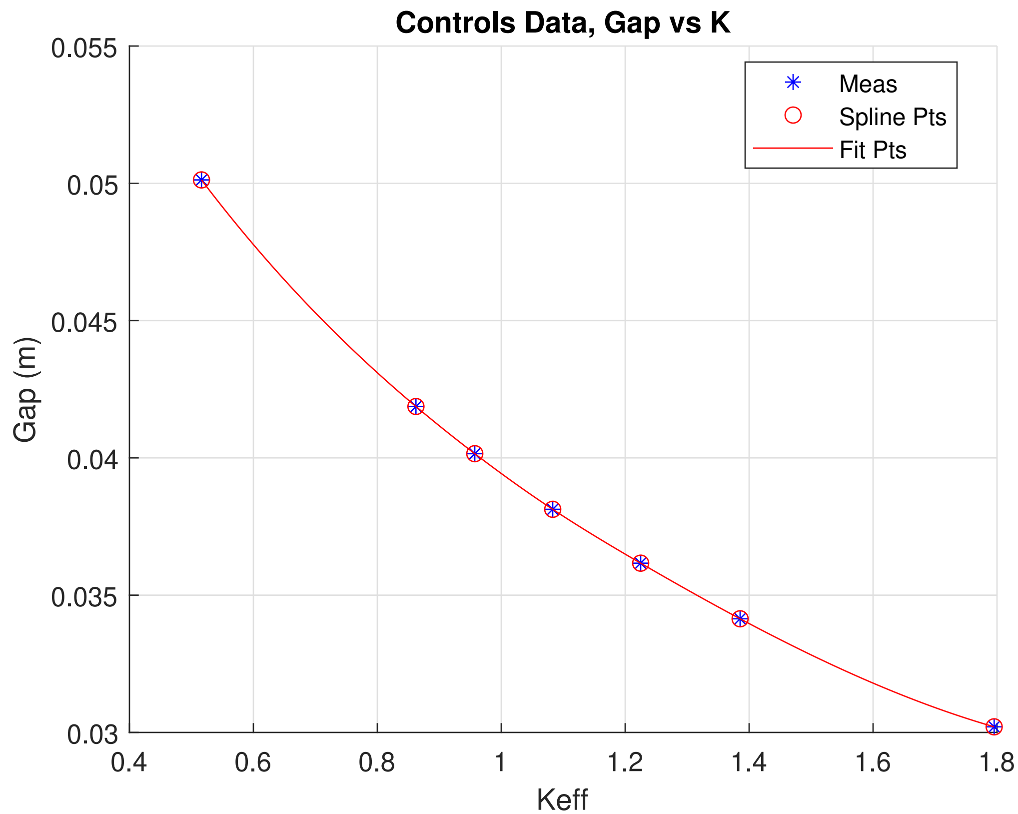

Gap -> K -> Gap Fits, Gap Difference
0.06
0.04
0.02
0
-0.02
-0.04
-0.06
-0.08
Gap After Fits - Original Gap (mm)
30
32
34
36
38
40
42
44
46
48
50
Original Gap (mm)

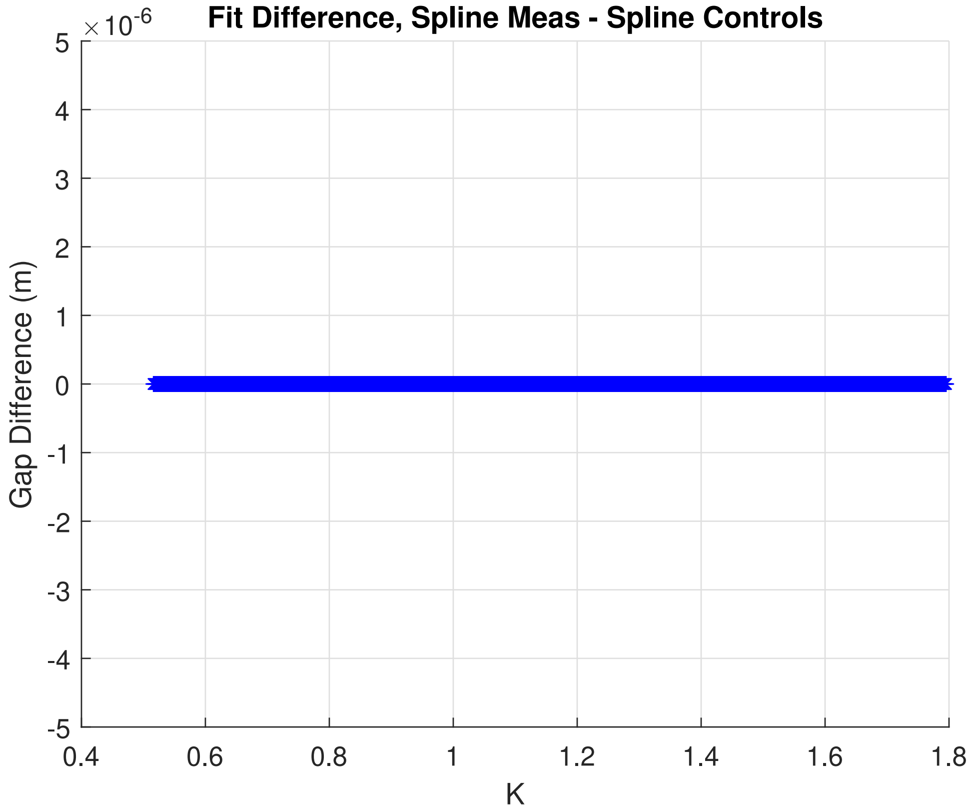

K -> Gap -> K Fits, K Difference
×10^-3
6
5
4
3
2
1
0
-1
-2
-3
-4
(K After Fits - Original K) / Original K
0.4
0.6
0.8
1
1.2
1.4
1.6
1.8
Original K


Controls Data, K vs Gap
Meas
Spline Pts
Fit Pts
Keff
Gap (m)
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.03
0.035
0.04
0.045
0.05
0.055



Fit Difference, Spline Meas - Spline Controls
×10^-4
5
4
3
2
1
0
-1
-2
-3
-4
-5
K Difference / K
0.03
0.035
0.04
0.045
0.05
0.055
0.06
Gap (m)


Controls Data, Gap vs K
Meas
Spline Pts
Fit Pts
Gap (m)
Keff
0.055
0.05
0.045
0.04
0.035
0.03
0.4
0.6
0.8
1
1.2
1.4
1.6
1.8



Fit Difference, Spline Meas - Spline Controls
×10-6
5
4
3
2
1
0
-1
-2
-3
-4
-5
Gap Difference (m)
0.4
0.6
0.8
1
1.2
1.4
1.6
1.8
K