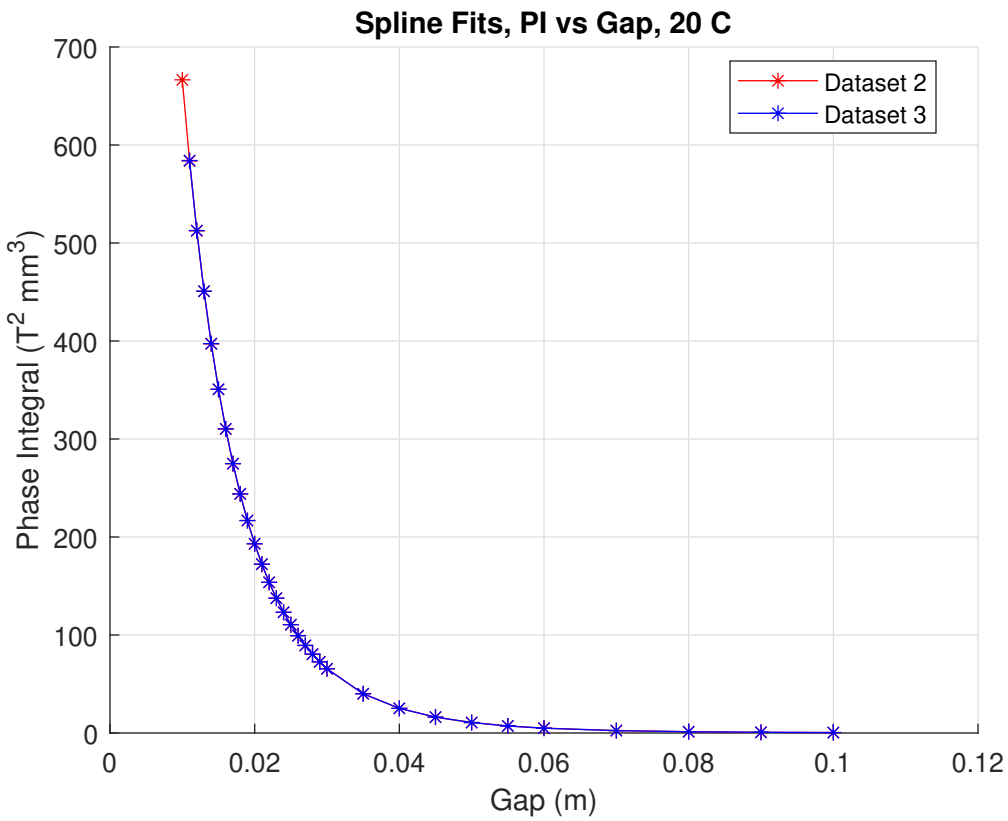
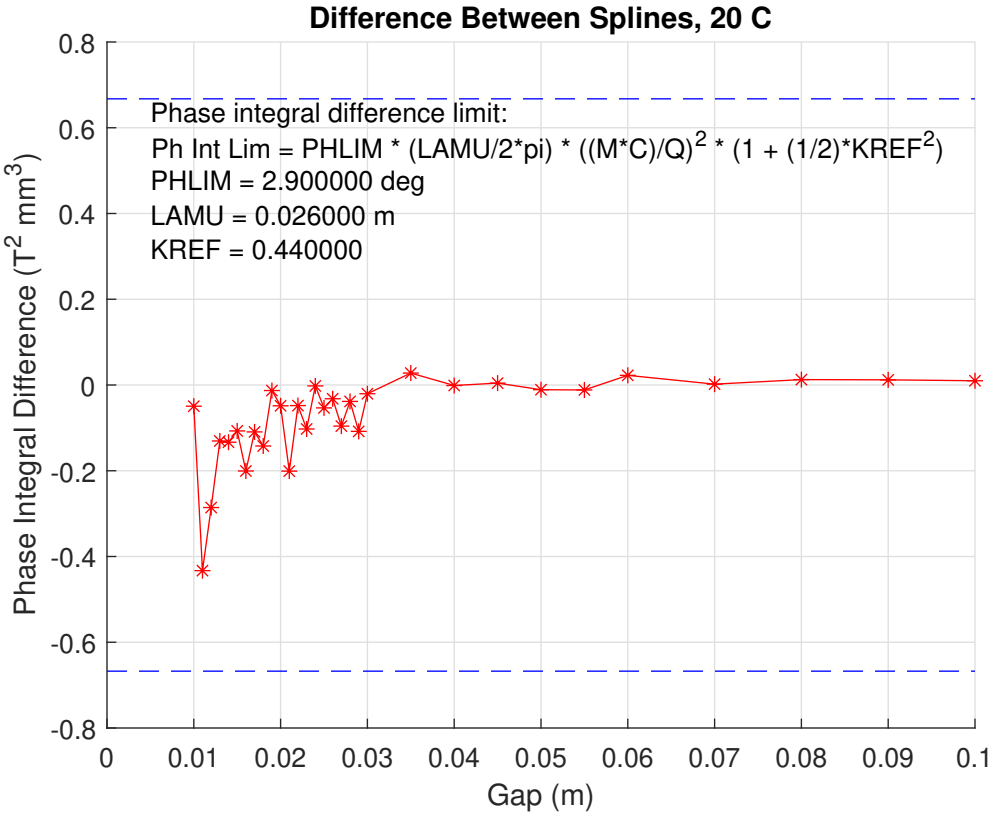
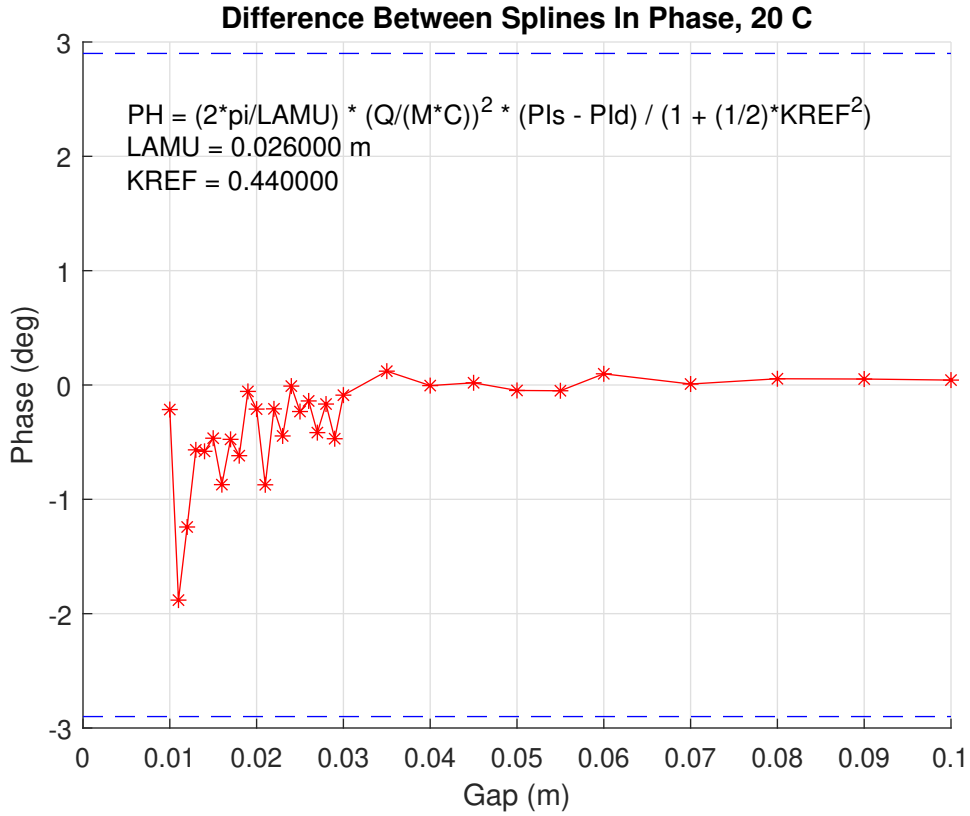
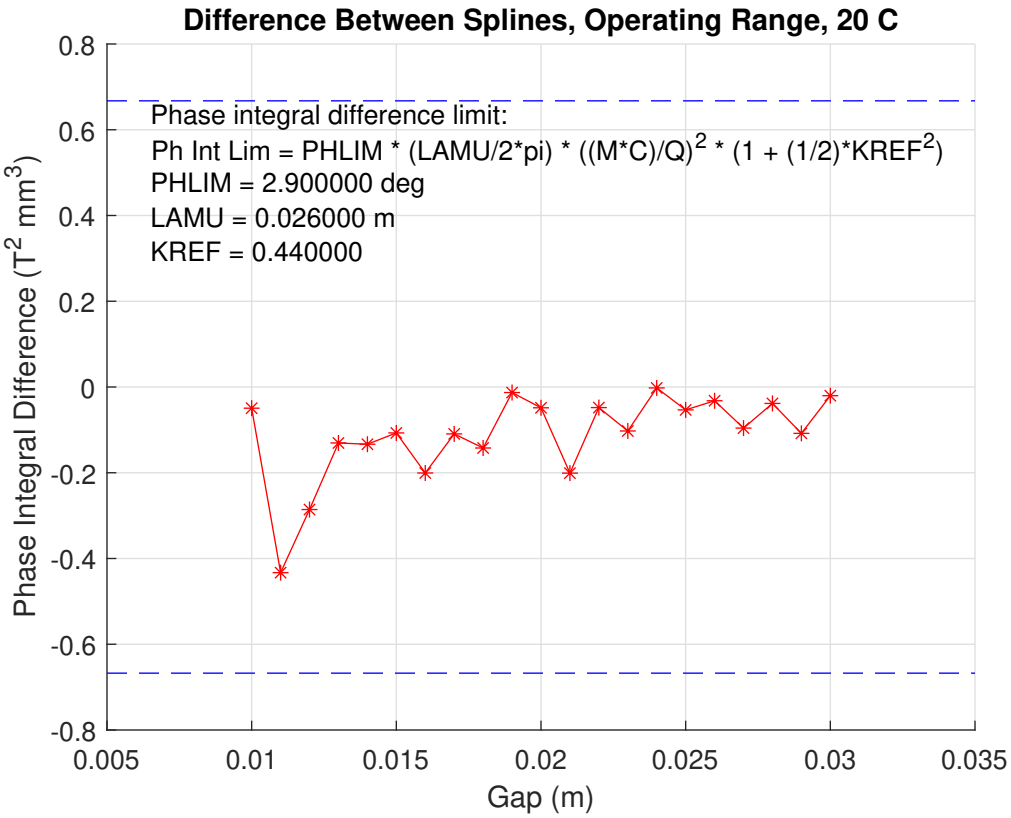
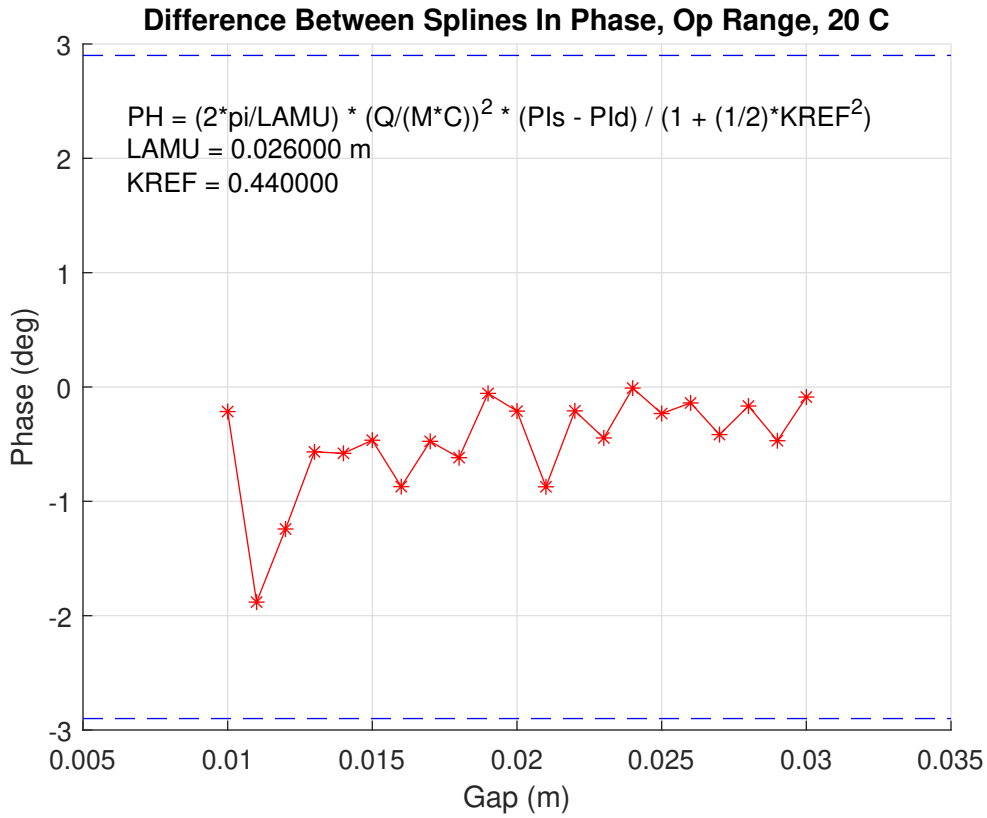
SLAC Magnetic Measurements#
Date: 08-26-2021#
Time: 11:38:18#


Spline Fits, PI vs Gap, 20 C
Dataset 2
Dataset 3
Phase Integral (T2 mm3)
Gap (m)
700
600
500
400
300
200
100
0
0
0.02
0.04
0.06
0.08
0.1
0.12


Difference Between Splines, 20 C
Phase integral difference limit:
Ph Int Lim = PHLIM * (LAMU/2*pi) * ((M*C)/Q)^2 * (1 + (1/2)*KREF^2)
PHLIM = 2.900000 deg
LAMU = 0.026000 m
KREF = 0.440000
Phase Integral Difference (T^2 mm^3)
Gap (m)
0.8
0.6
0.4
0.2
0
-0.2
-0.4
-0.6
-0.8
0
0.01
0.02
0.03
0.04
0.05
0.06
0.07
0.08
0.09
0.1


Difference Between Splines In Phase, 20 C
PH = (2*pi/LAMU) * (Q/(M*C))^2 * (Pls - Pld) / (1 + (1/2)*KREF^2)
LAMU = 0.026000 m
KREF = 0.440000
Phase (deg)
Gap (m)
3
2
1
0
-1
-2
-3
0
0.01
0.02
0.03
0.04
0.05
0.06
0.07
0.08
0.09
0.1


Difference Between Splines, Operating Range, 20 C
Phase integral difference limit:
Ph Int Lim = PHLIM * (LAMU/2*pi) * ((M*C)/Q)^2 * (1 + (1/2)*KREF^2)
PHLIM = 2.900000 deg
LAMU = 0.026000 m
KREF = 0.440000
Phase Integral Difference (T^2 mm^3)
Gap (m)
0.8
0.6
0.4
0.2
0
-0.2
-0.4
-0.6
-0.8
0.005
0.01
0.015
0.02
0.025
0.03
0.035


Difference Between Splines In Phase, Op Range, 20 C
PH = (2*pi/LAMU) * (Q/(M*C))^2 * (Pls - Pld) / (1 + (1/2)*KREF^2)
LAMU = 0.026000 m
KREF = 0.440000
Phase (deg)
Gap (m)
3
2
1
0
-1
-2
-3
0.005
0.01
0.015
0.02
0.025
0.03
0.035