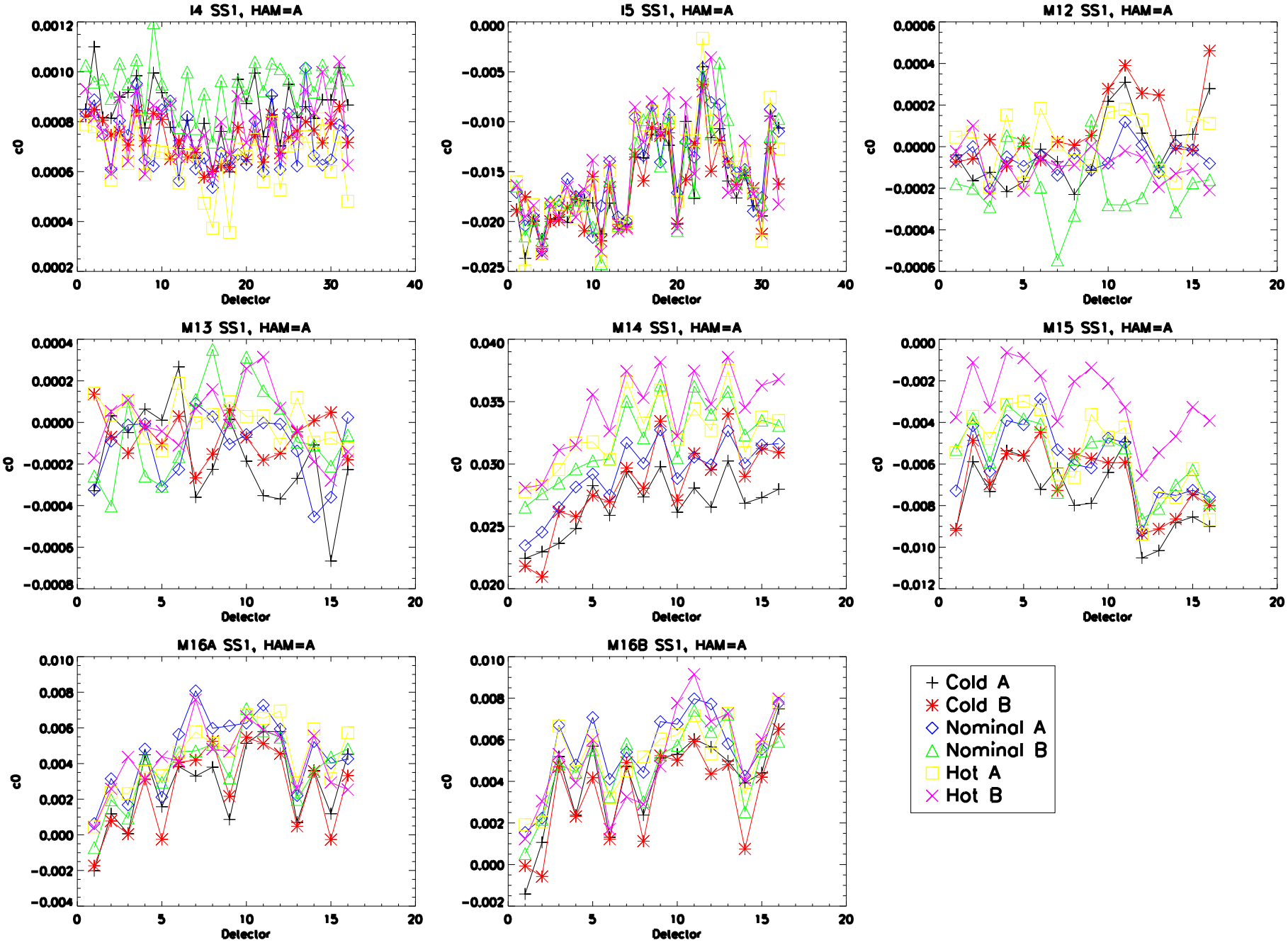
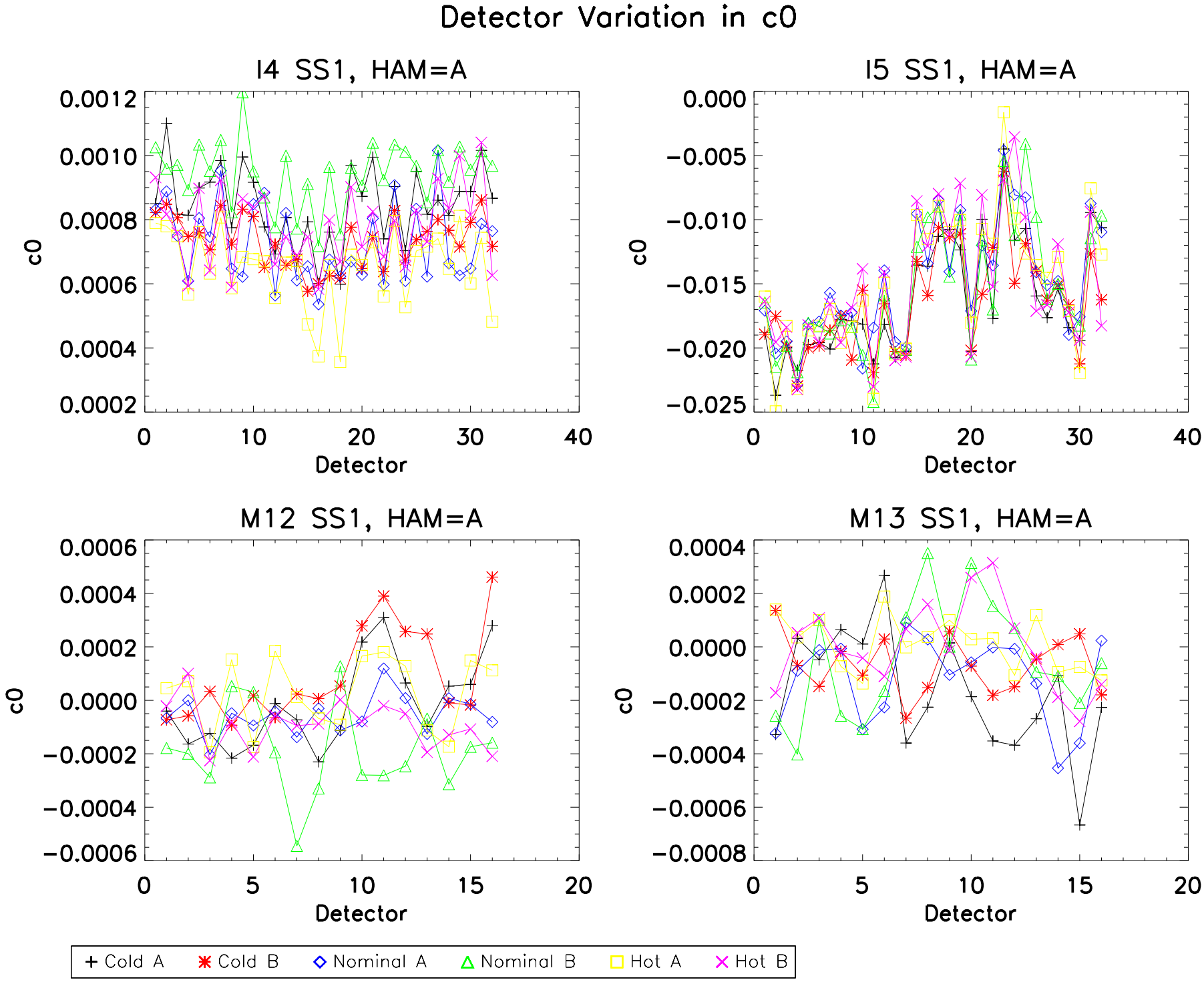
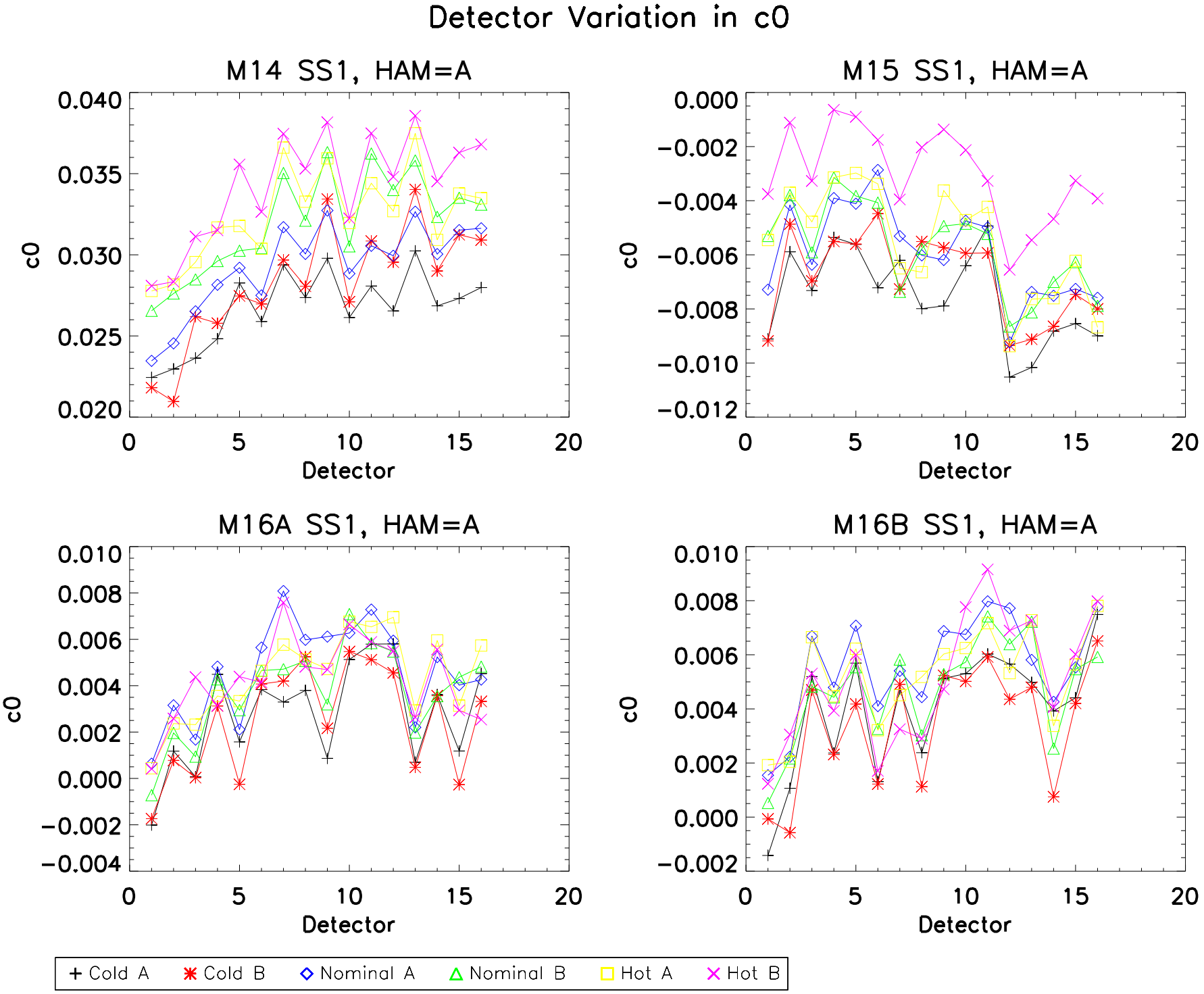
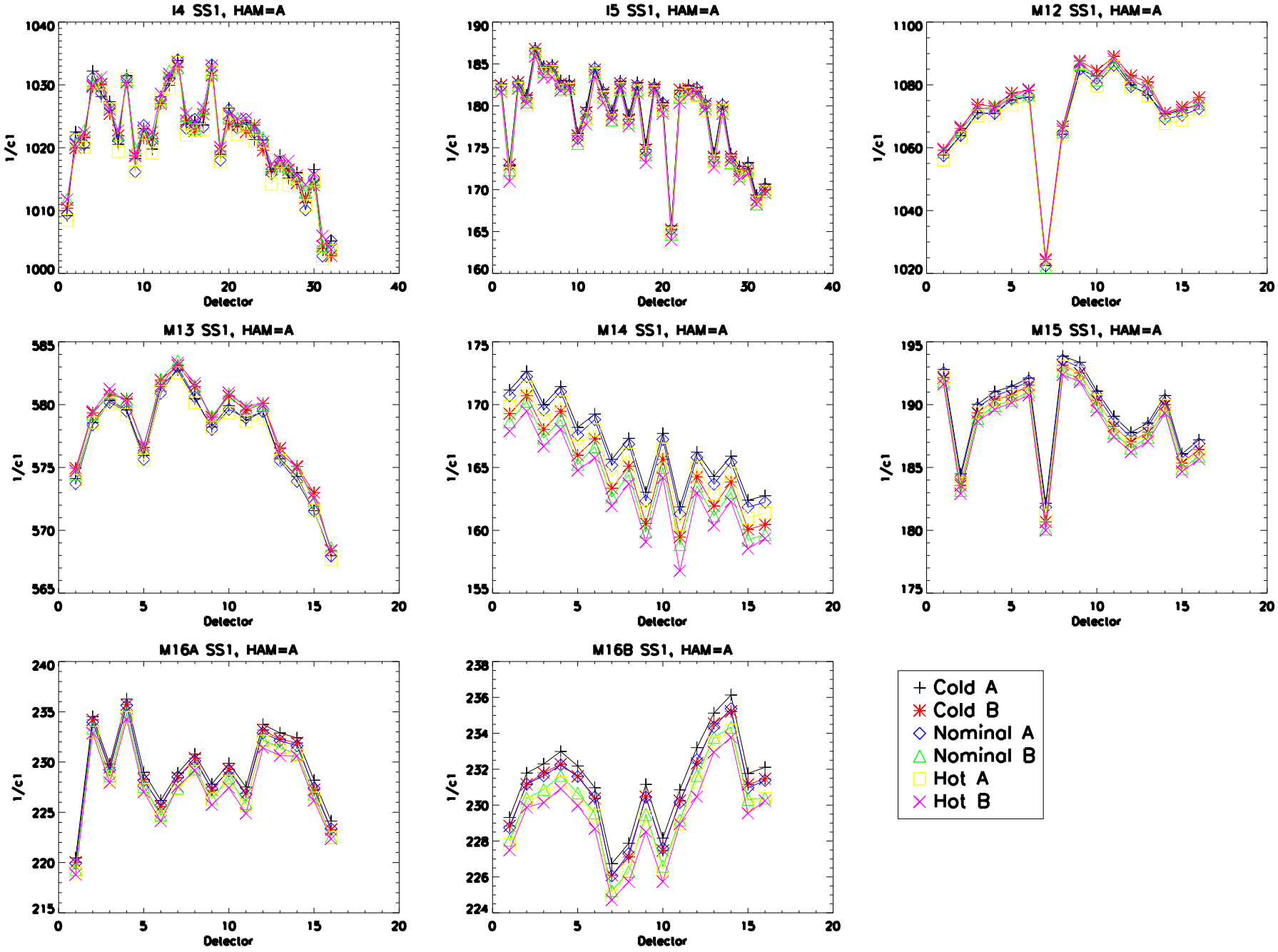
# Detector Variation in c0

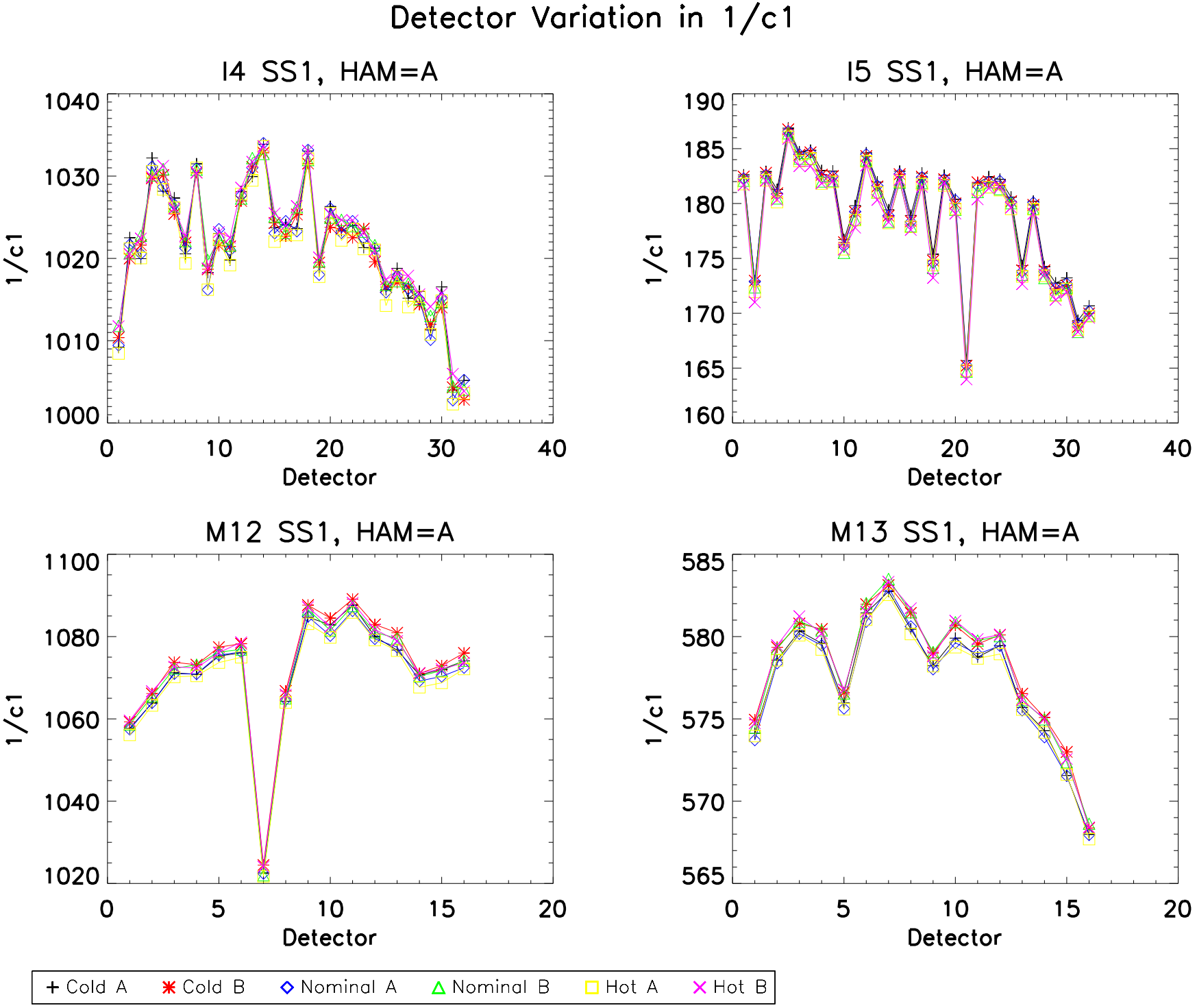


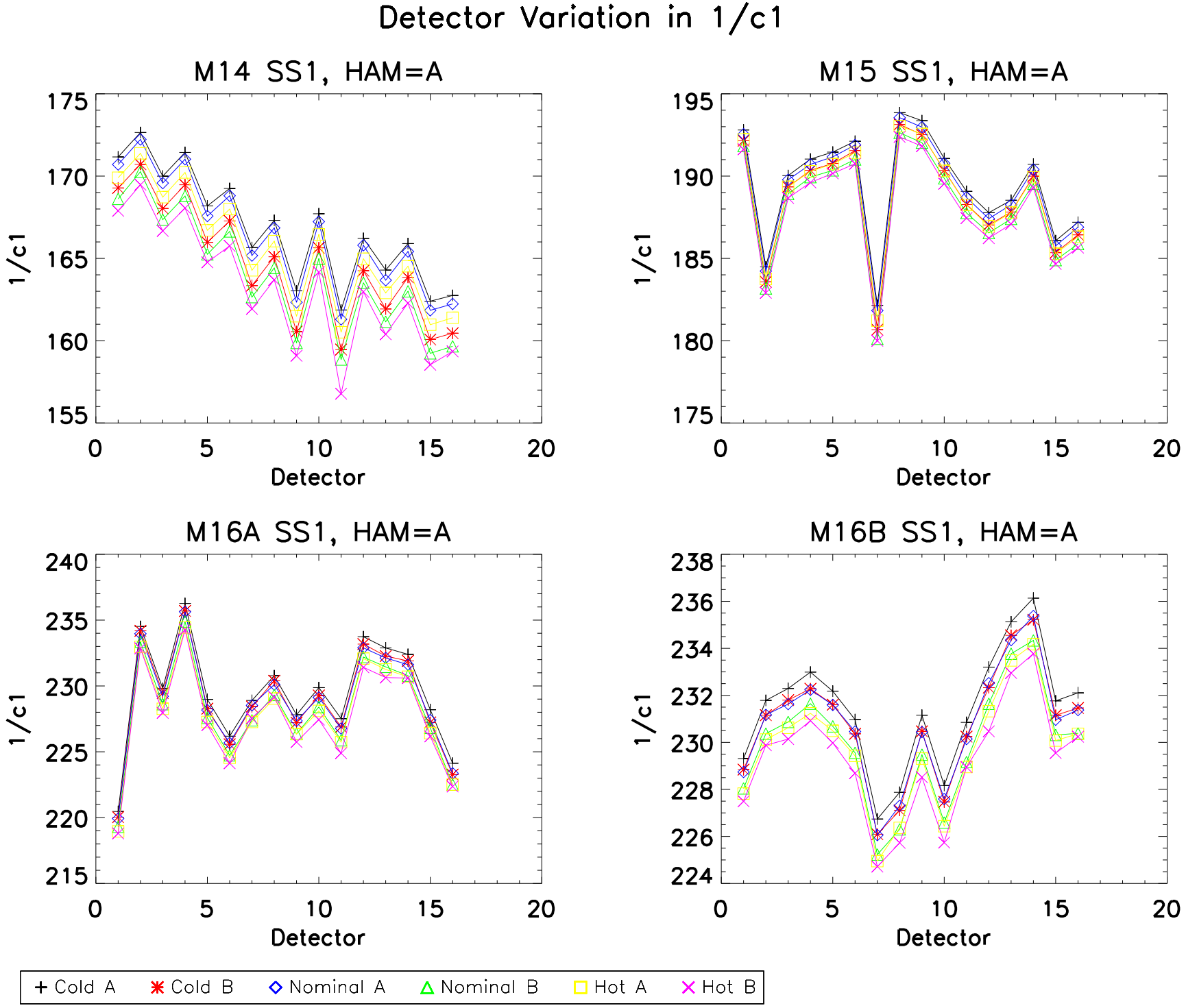

Detector Variation in c0
I4 SS1, HAM=A
I5 SS1, HAM=A
M12 SS1, HAM=A
M13 SS1, HAM=A
c0
Detector
0.0012
0.0010
0.0008
0.0006
0.0004
0.0002
0.000
−0.005
−0.010
−0.015
−0.020
−0.025
0.0006
0.0004
0.0002
0.0000
−0.0002
−0.0004
−0.0006
−0.0008
0
5
10
15
20
30
40
Cold A
Cold B
Nominal A
Nominal B
Hot A
Hot B


Detector Variation in c0
M14 SS1, HAM=A
M15 SS1, HAM=A
M16A SS1, HAM=A
M16B SS1, HAM=A
c0
Detector
0.040
0.035
0.030
0.025
0.020
0.000
−0.002
−0.004
−0.006
−0.008
−0.010
−0.012
0.010
0.008
0.006
0.004
0.002
0.000
−0.002
−0.004
0
5
10
15
20
Cold A
Cold B
Nominal A
Nominal B
Hot A
Hot B

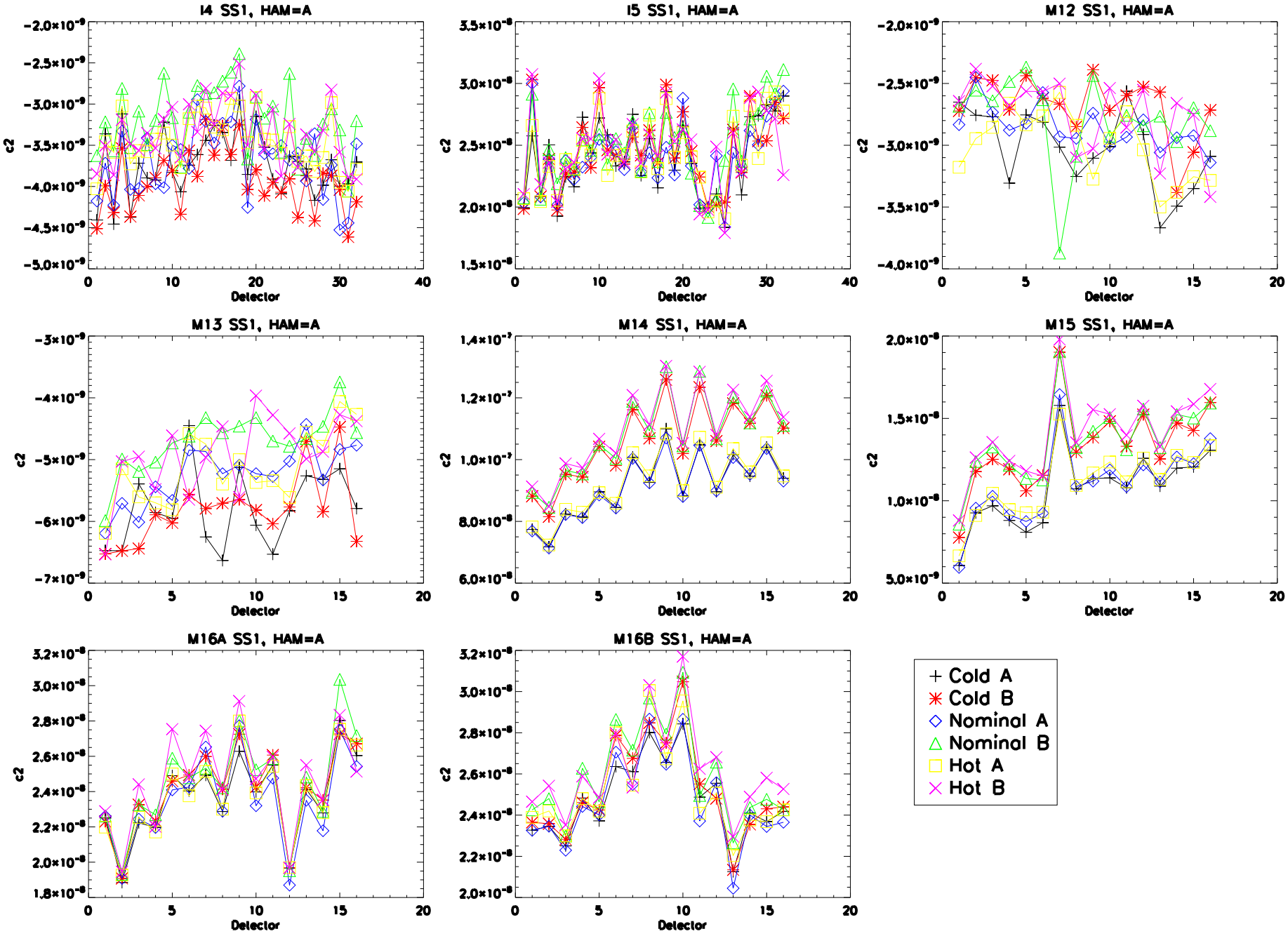
# Detector Variation in 1/c1

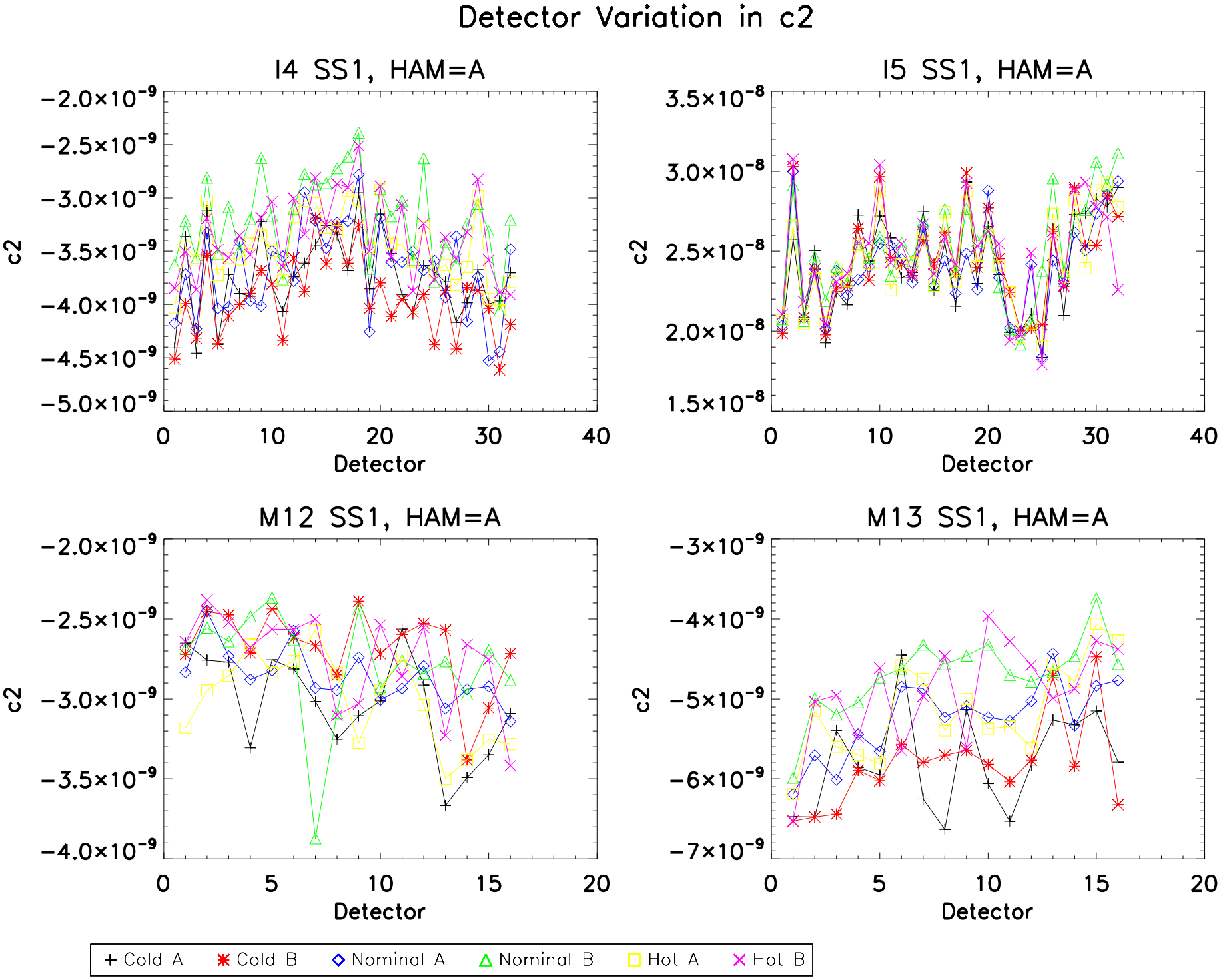


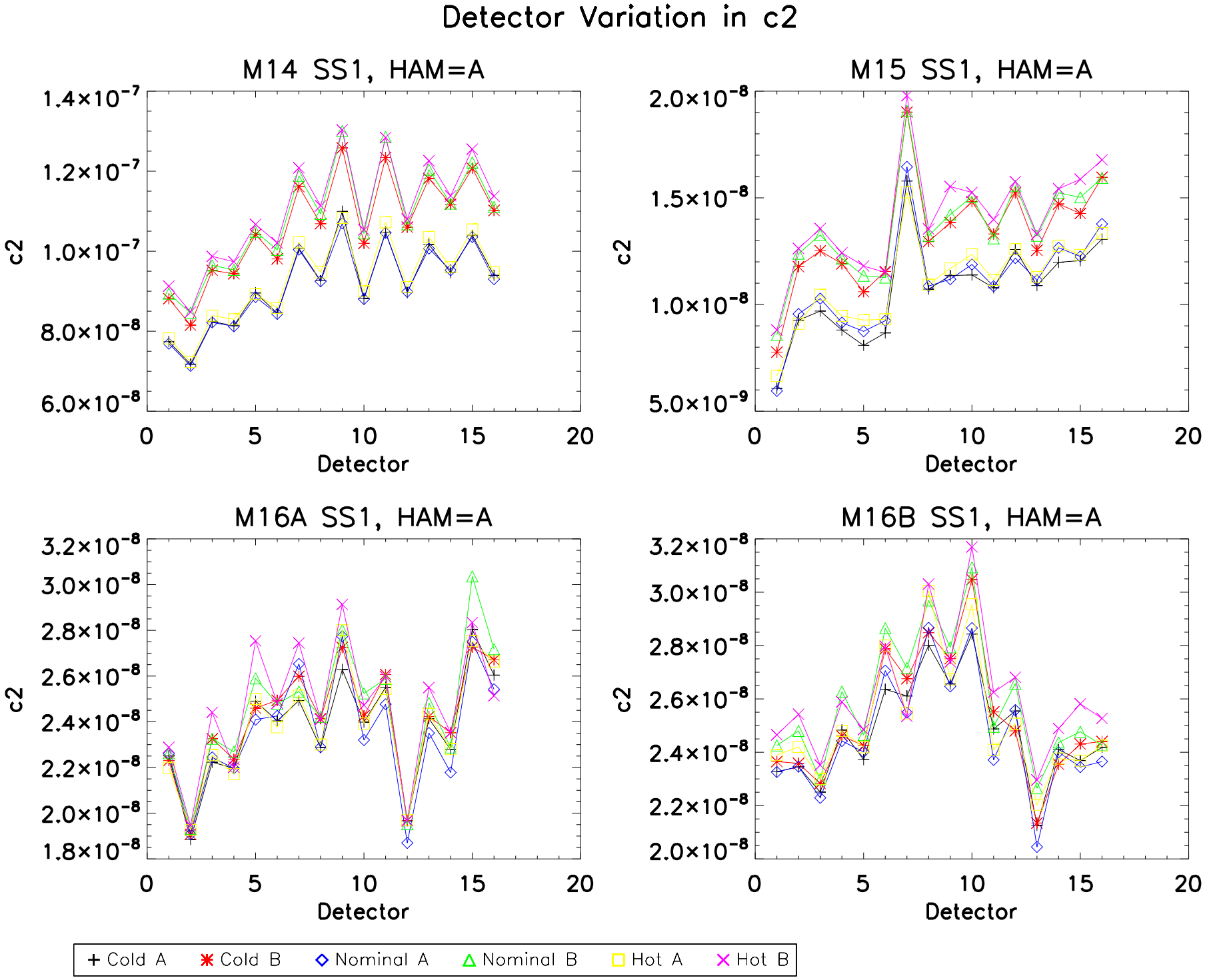

Detector Variation in 1/c1
I4 SS1, HAM=A
I5 SS1, HAM=A
M12 SS1, HAM=A
M13 SS1, HAM=A
1/c1
Detector
Cold A
Cold B
Nominal A
Nominal B
Hot A
Hot B


Detector Variation in 1/c1
M14 SS1, HAM=A
M15 SS1, HAM=A
M16A SS1, HAM=A
M16B SS1, HAM=A
1/c1
Detector
Cold A
Cold B
Nominal A
Nominal B
Hot A
Hot B

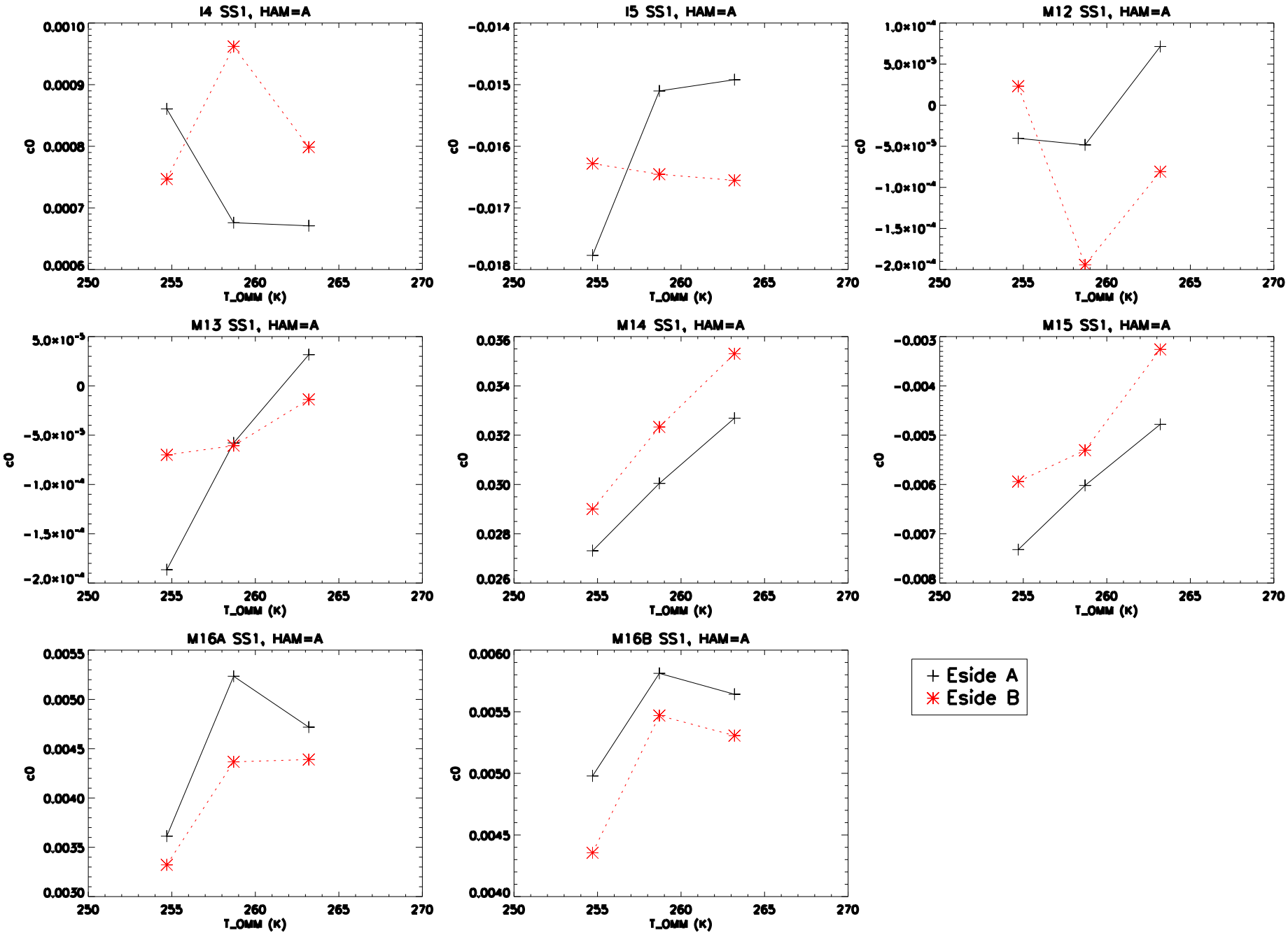
# Detector Variation in c2



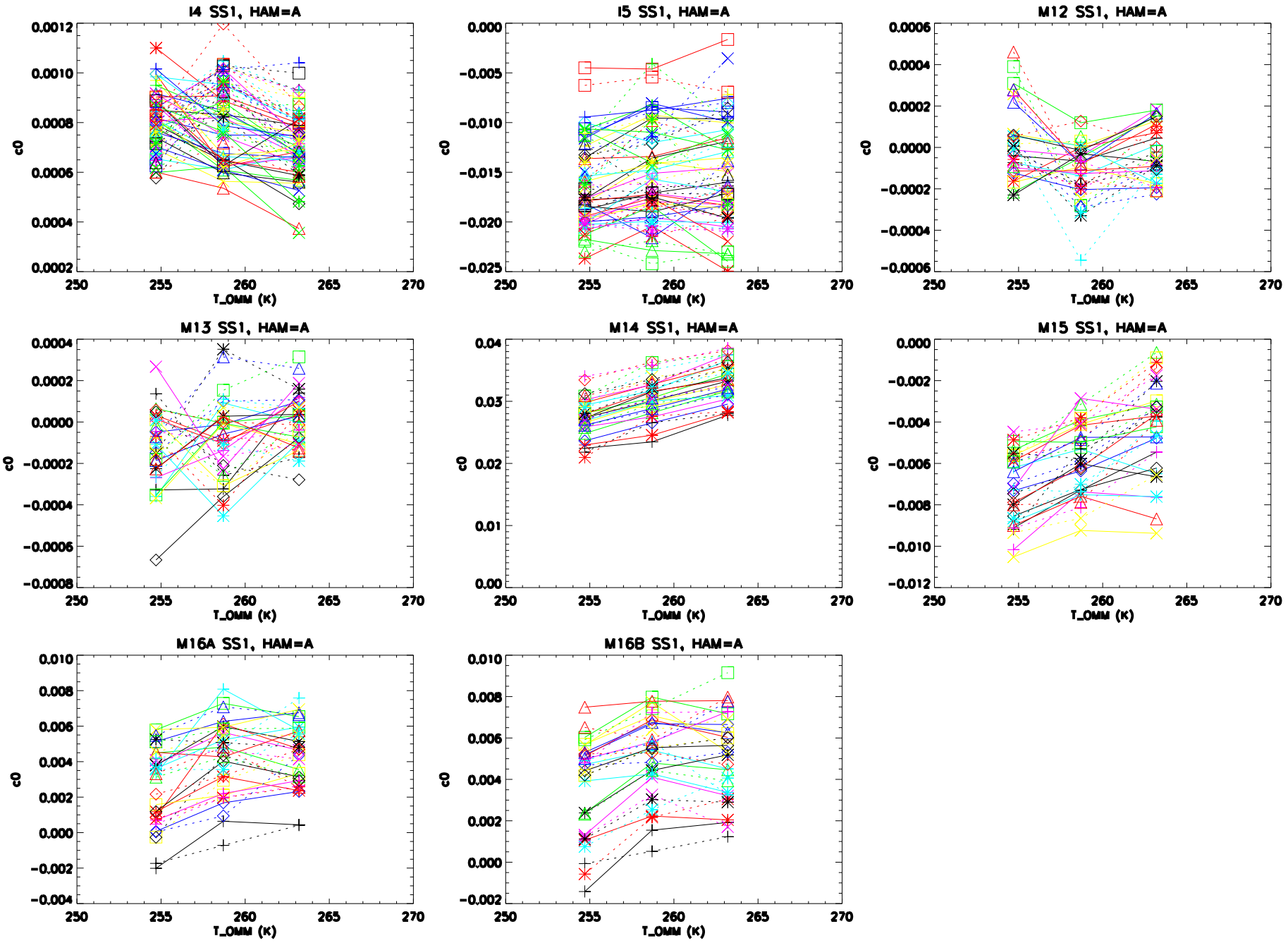

Detector Variation in c2
I4 SS1, HAM=A
I5 SS1, HAM=A
M12 SS1, HAM=A
M13 SS1, HAM=A
c2
Detector
−2.0×10−9
−2.5×10−9
−3.0×10−9
−3.5×10−9
−4.0×10−9
−4.5×10−9
−5.0×10−9
3.5×10−8
3.0×10−8
2.5×10−8
2.0×10−8
1.5×10−8
−3×10−9
−4×10−9
−5×10−9
−6×10−9
−7×10−9
0
5
10
15
20
30
40
Cold A
Cold B
Nominal A
Nominal B
Hot A
Hot B

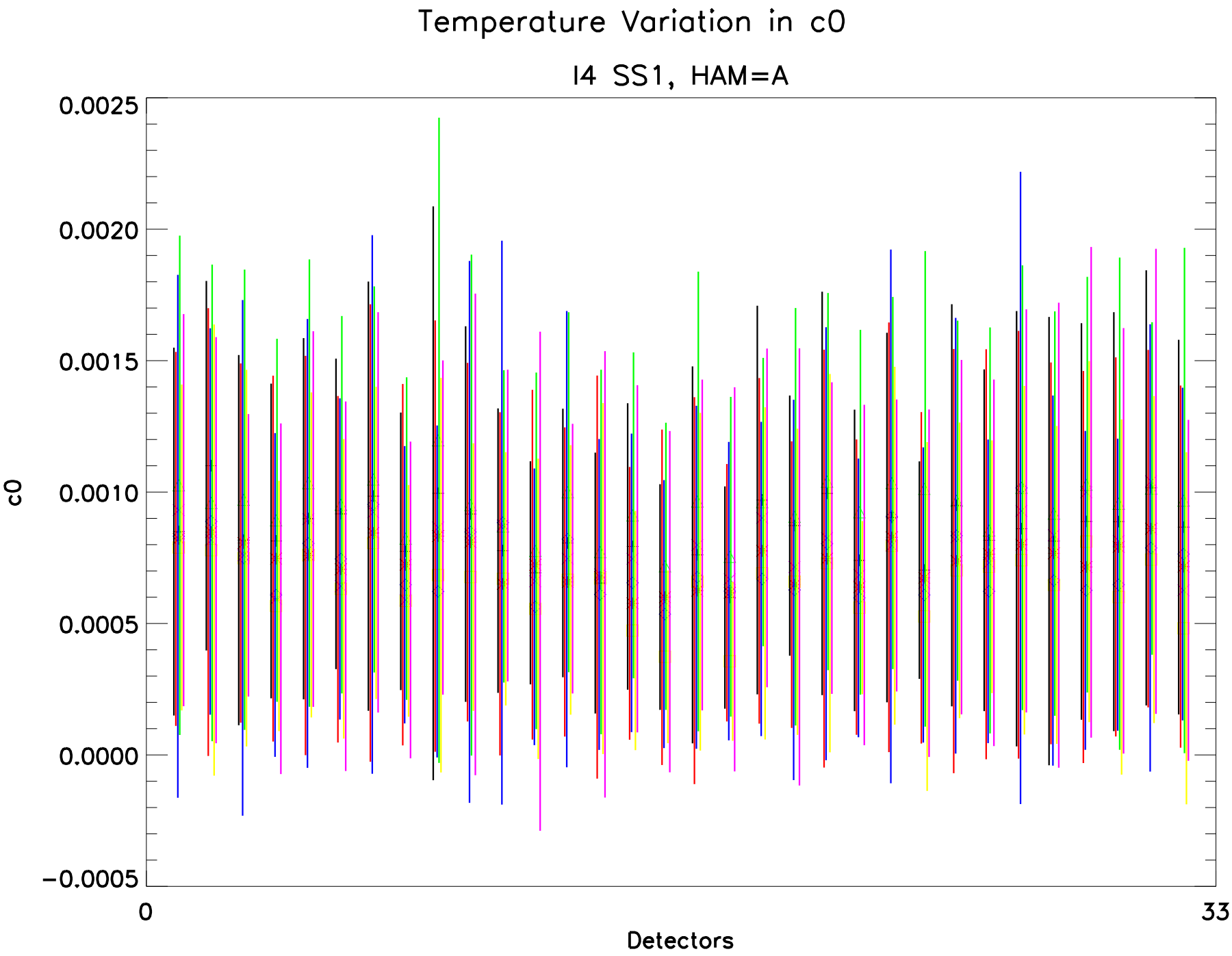

Detector Variation in c2
M14 SS1, HAM=A
M15 SS1, HAM=A
M16A SS1, HAM=A
M16B SS1, HAM=A
c2
Detector
1.4×10⁻⁷
1.2×10⁻⁷
1.0×10⁻⁷
8.0×10⁻⁸
6.0×10⁻⁸
2.0×10⁻⁸
1.5×10⁻⁸
1.0×10⁻⁸
5.0×10⁻⁹
3.2×10⁻⁸
3.0×10⁻⁸
2.8×10⁻⁸
2.6×10⁻⁸
2.4×10⁻⁸
2.2×10⁻⁸
2.0×10⁻⁸
1.8×10⁻⁸
0
5
10
15
20
Cold A
Cold B
Nominal A
Nominal B
Hot A
Hot B

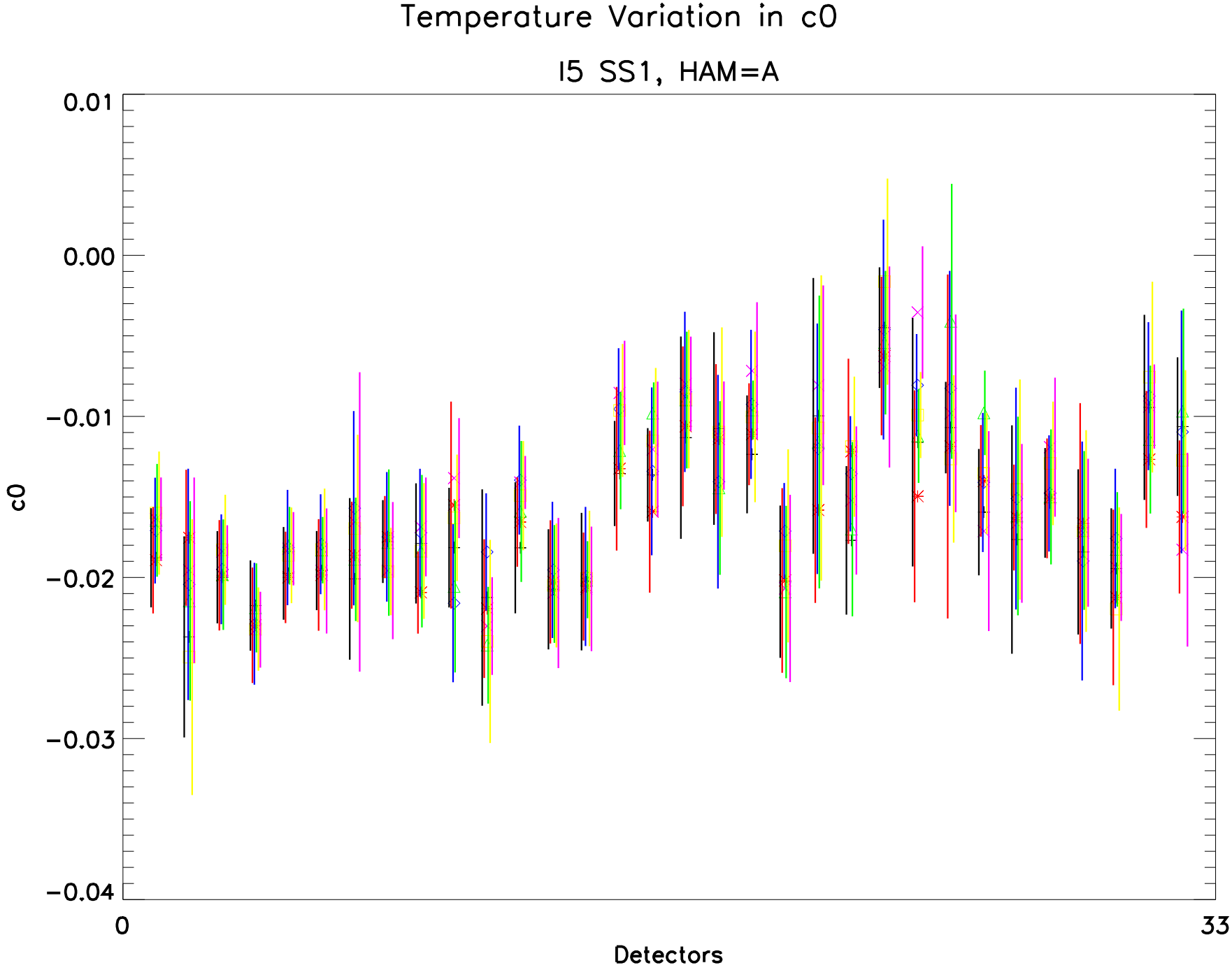
# Temperature Variation in c0

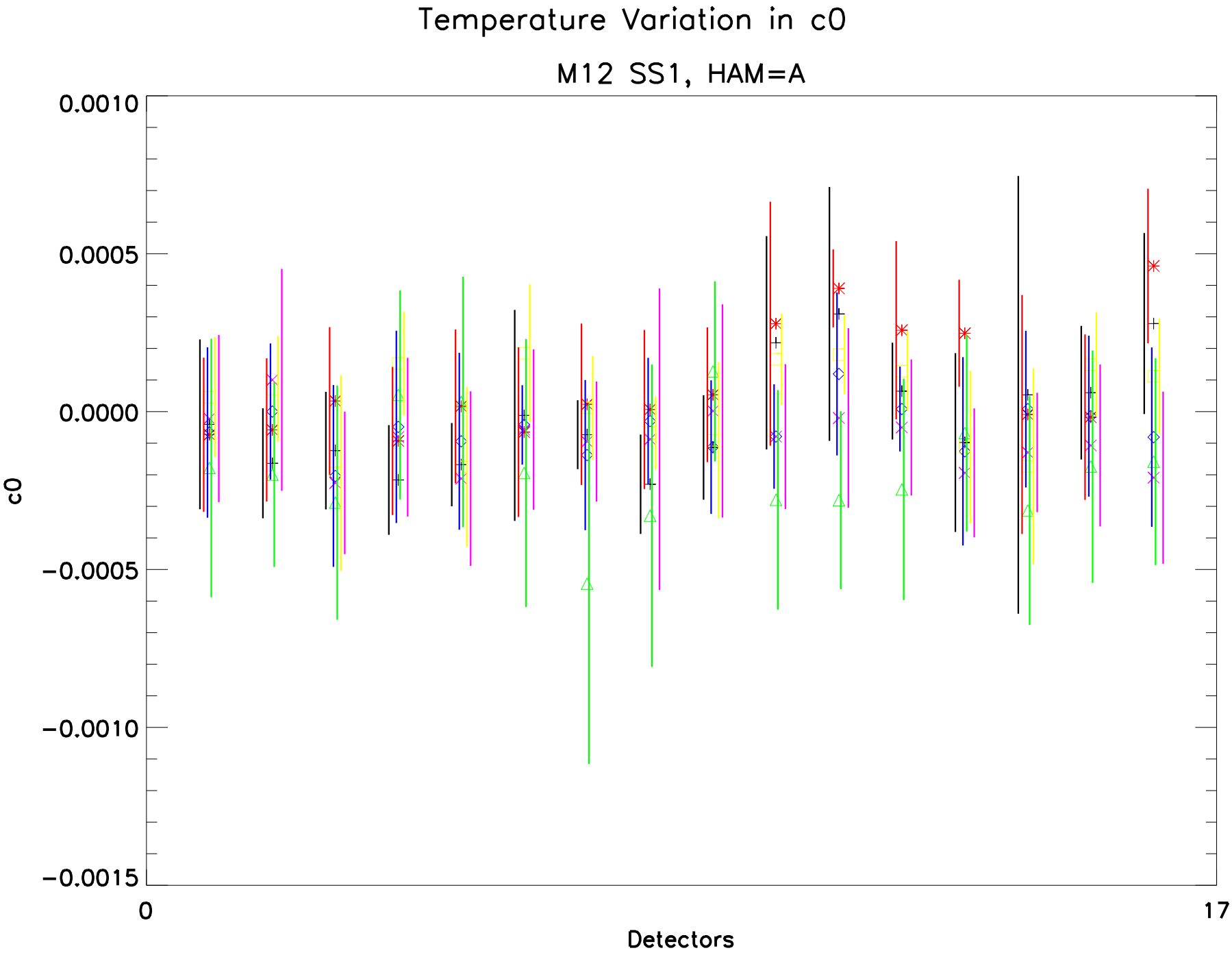


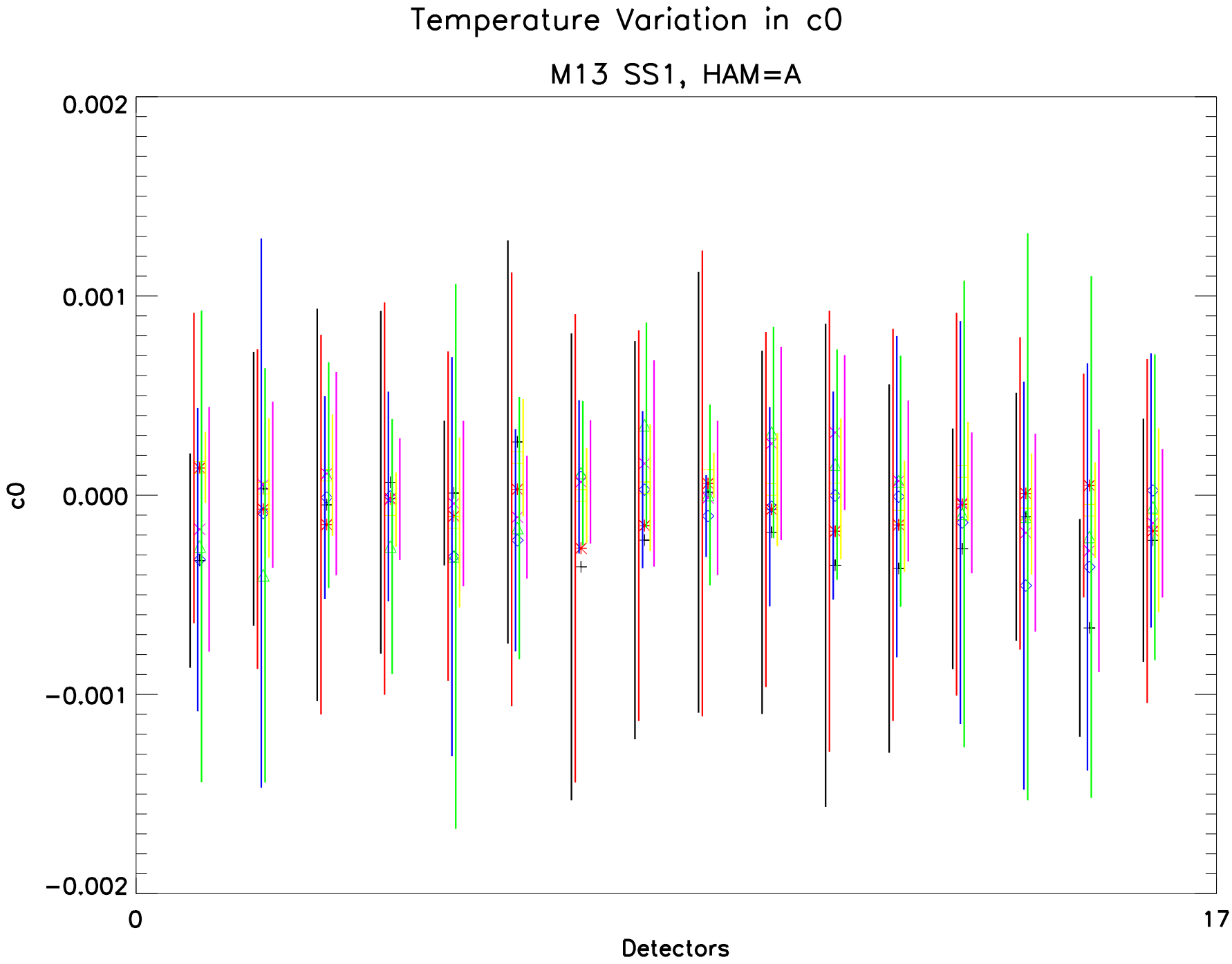
# Temperature Variation in c0

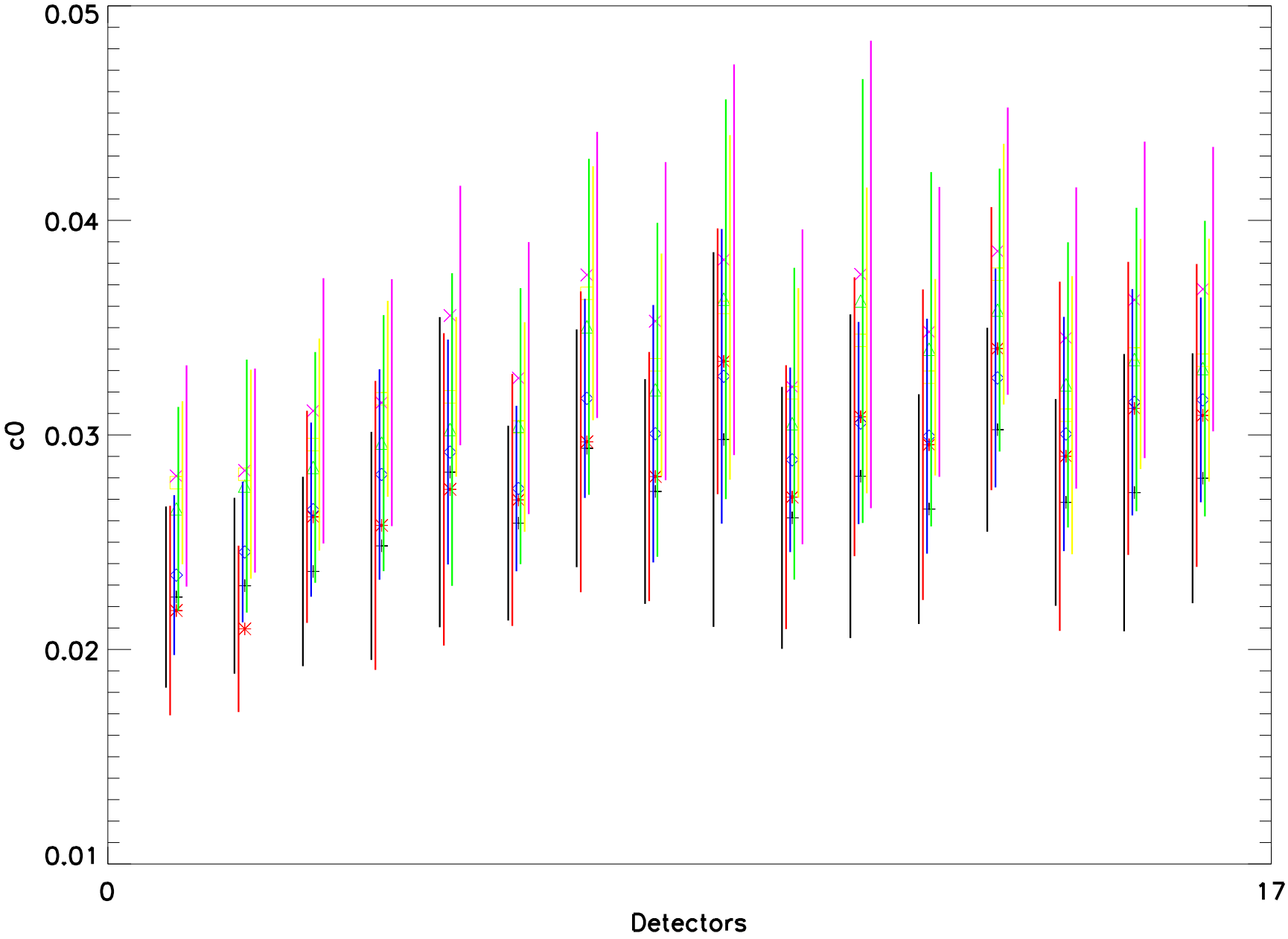


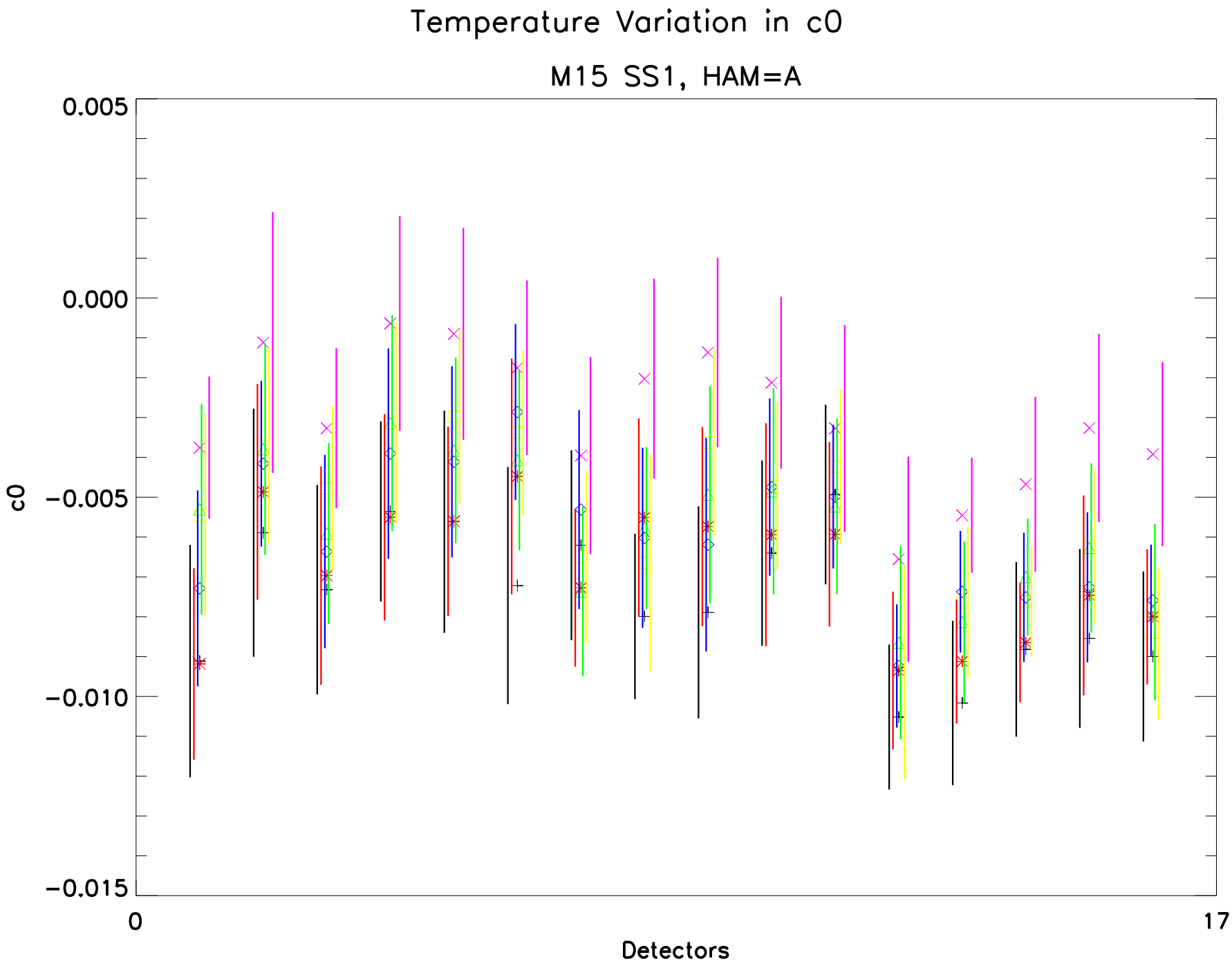

Temperature Variation in c0
I4 SS1, HAM=A
0.0025
0.0020
0.0015
0.0010
0.0005
0.0000
−0.0005
c0
0
33
Detectors

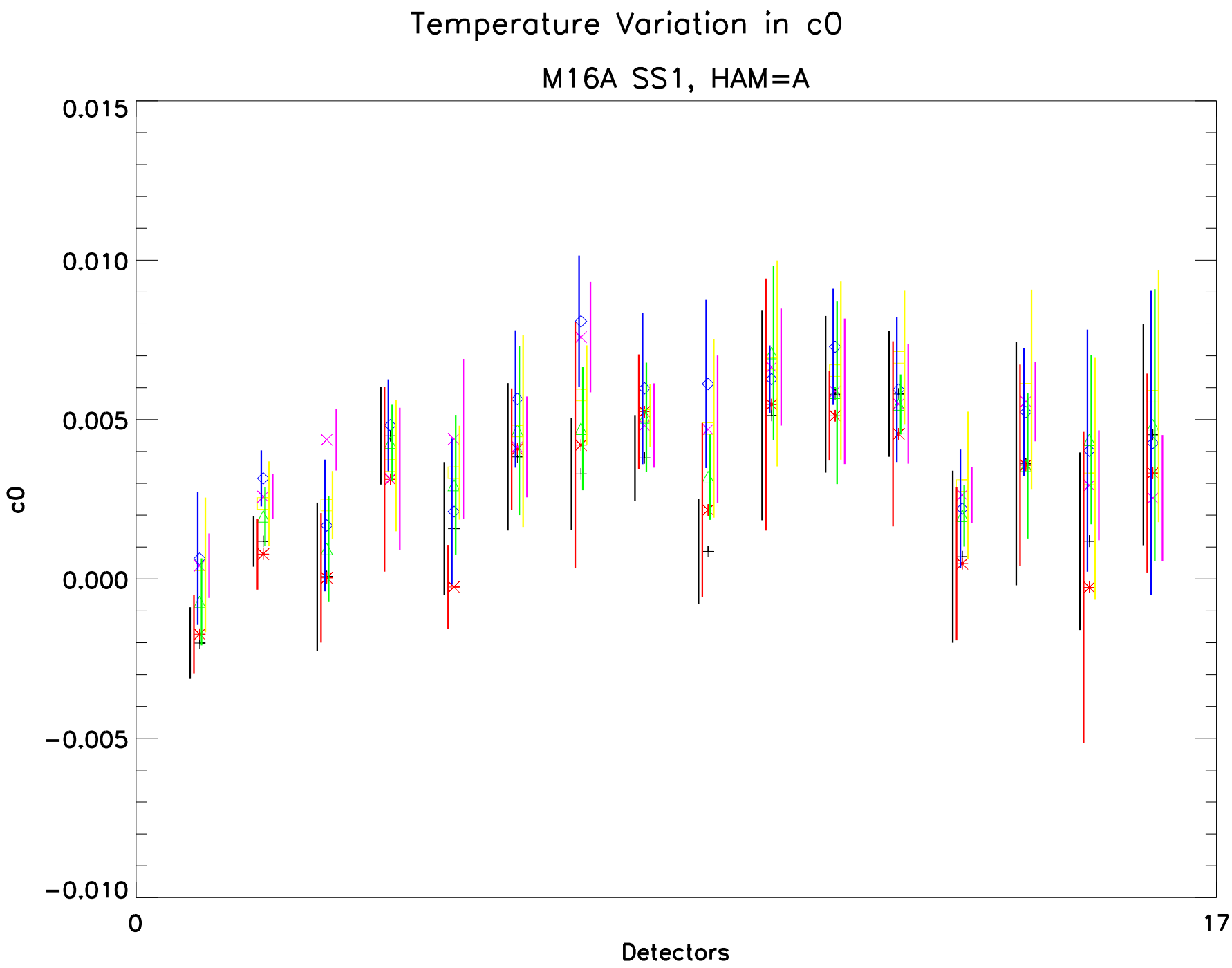

Temperature Variation in c0
I5 SS1, HAM=A
0.01
0.00
−0.01
−0.02
−0.03
−0.04
c0
0
33
Detectors

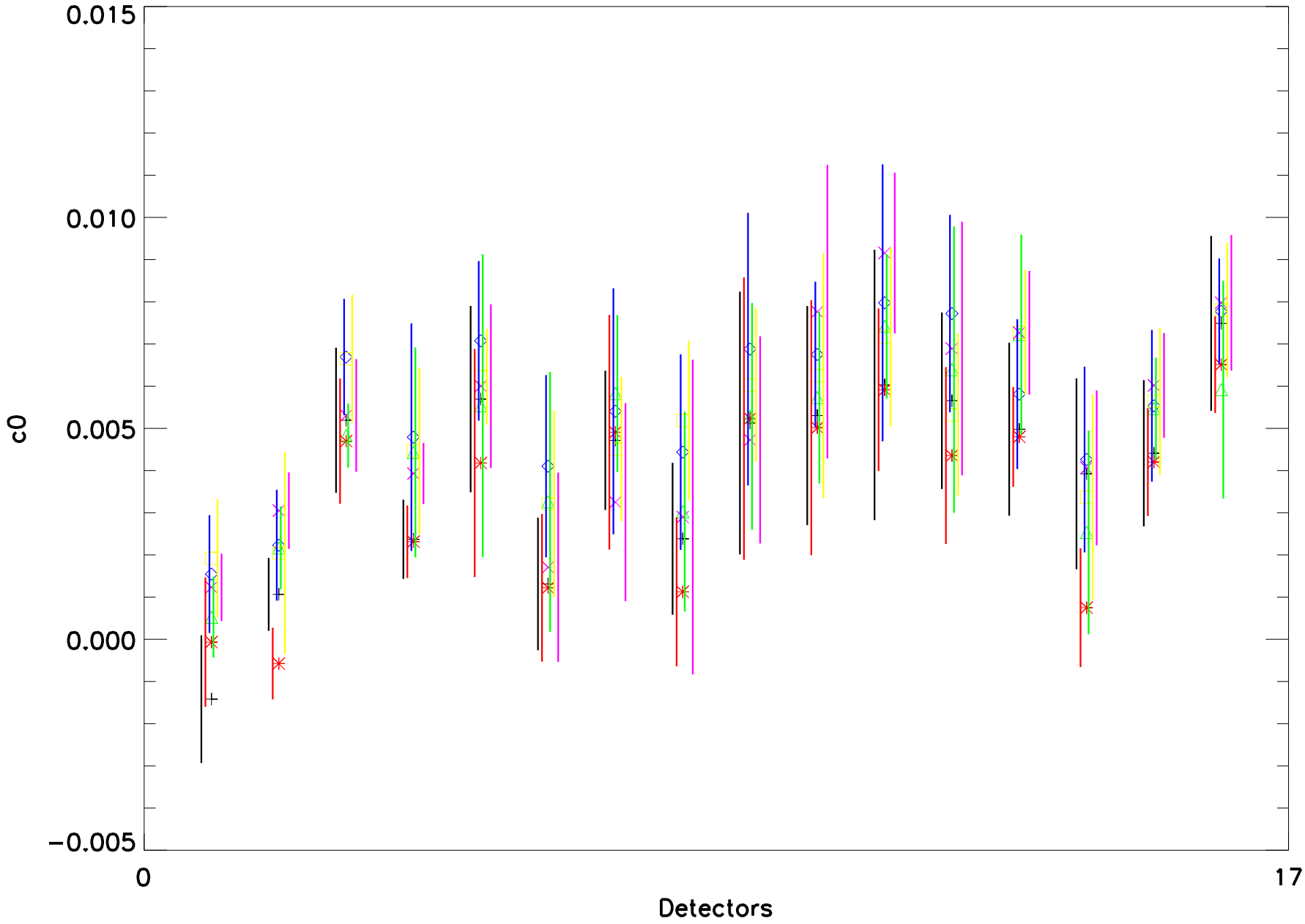

Temperature Variation in c0
M12 SS1, HAM=A
0.0010
0.0005
0.0000
−0.0005
−0.0010
−0.0015
c0
0
17
Detectors


Temperature Variation in c0
M13 SS1, HAM=A
0.002
0.001
0.000
−0.001
−0.002
c0
0
17
Detectors

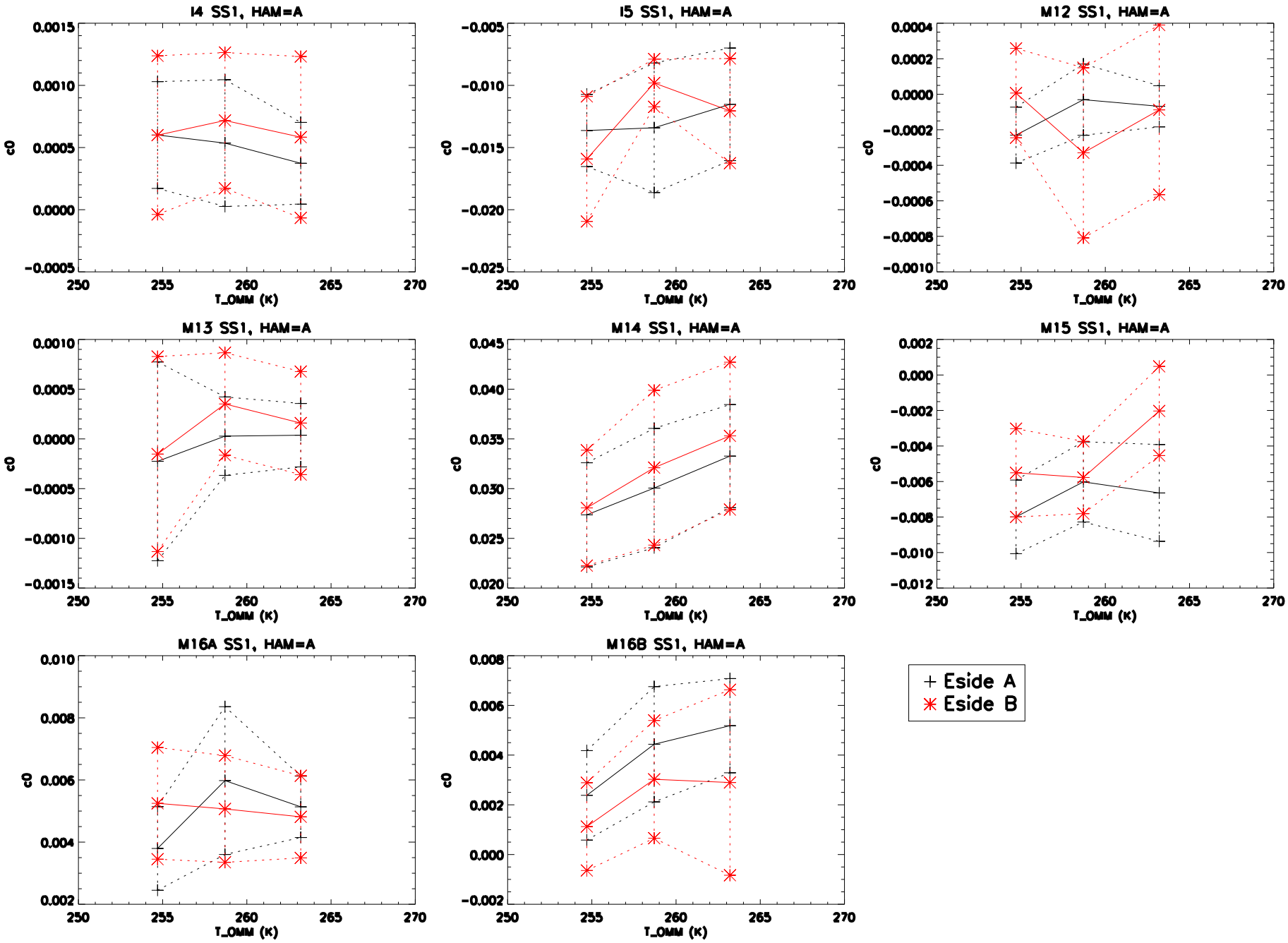

Temperature Variation in c0
M14 SS1, HAM=A
0.05
0.04
0.03
0.02
0.01
c0
0
17
Detectors


Temperature Variation in c0
M15 SS1, HAM=A
0.005
0.000
−0.005
−0.010
−0.015
c0
0
17
Detectors

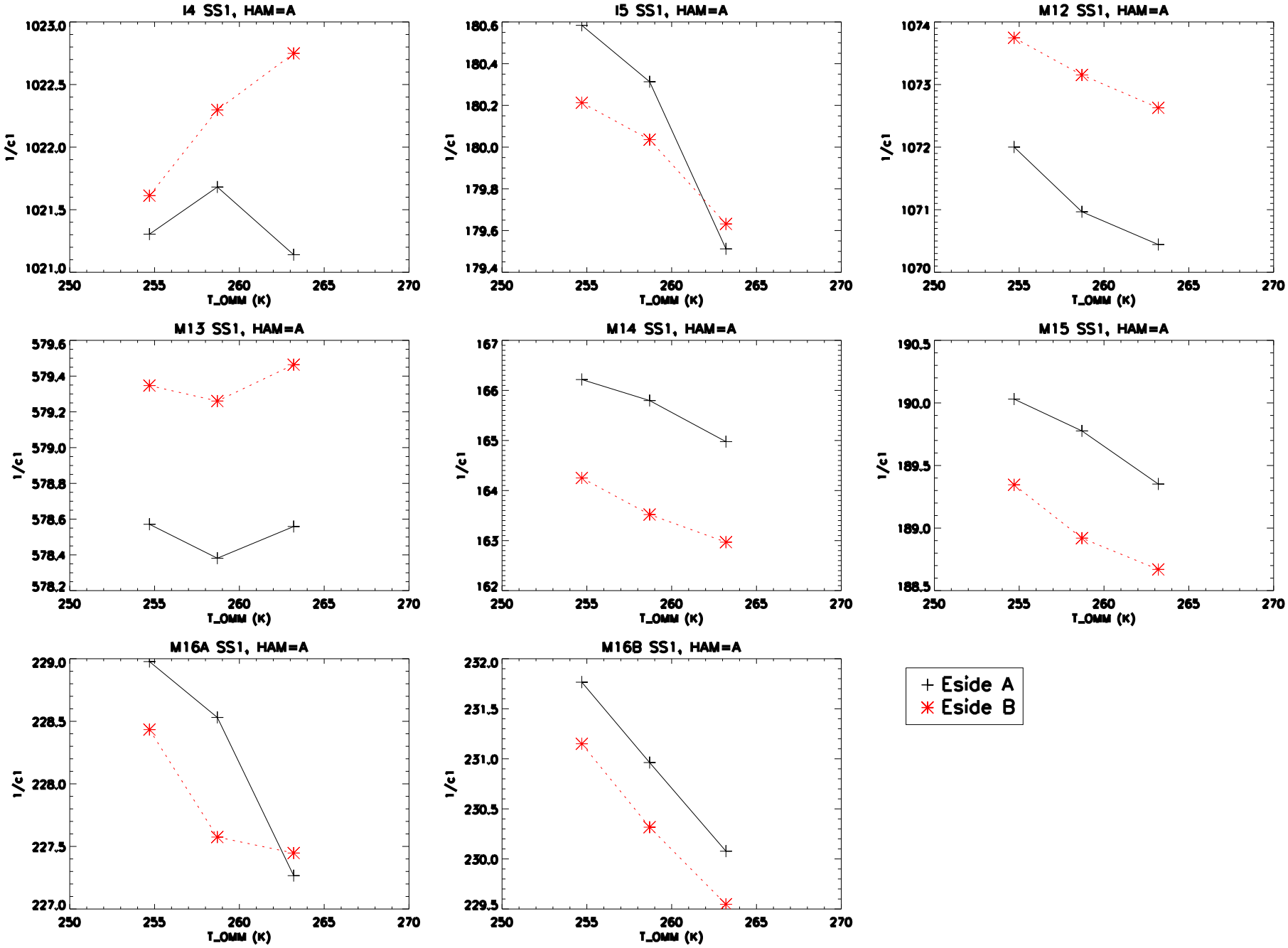

Temperature Variation in c0
M16A SS1, HAM=A
0.015
0.010
0.005
0.000
−0.005
−0.010
c0
0
17
Detectors


Temperature Variation in c0
M16B SS1, HAM=A
0.015
0.010
0.005
0.000
−0.005
c0
0
17
Detectors

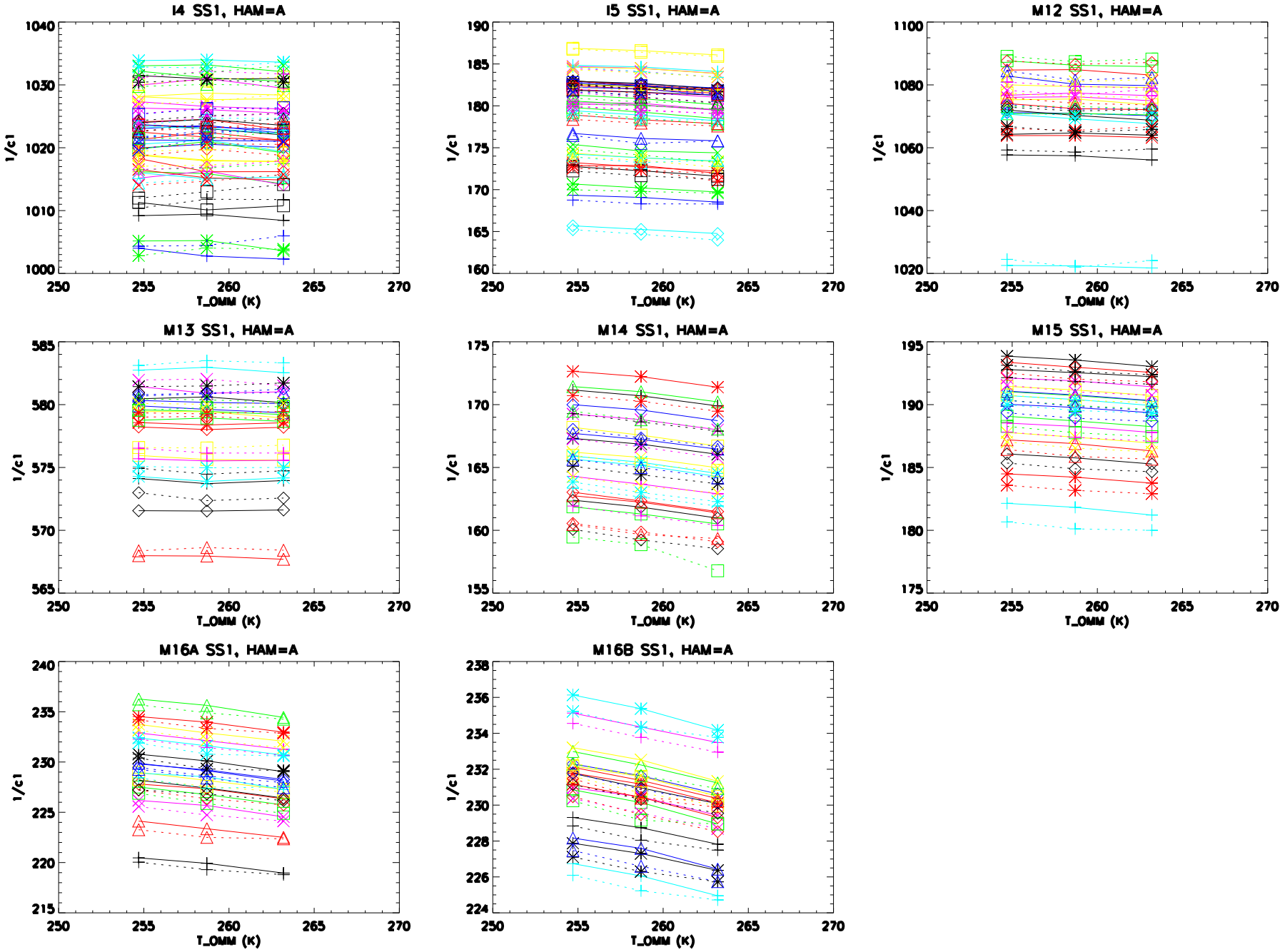
# Temperature Variation in c0



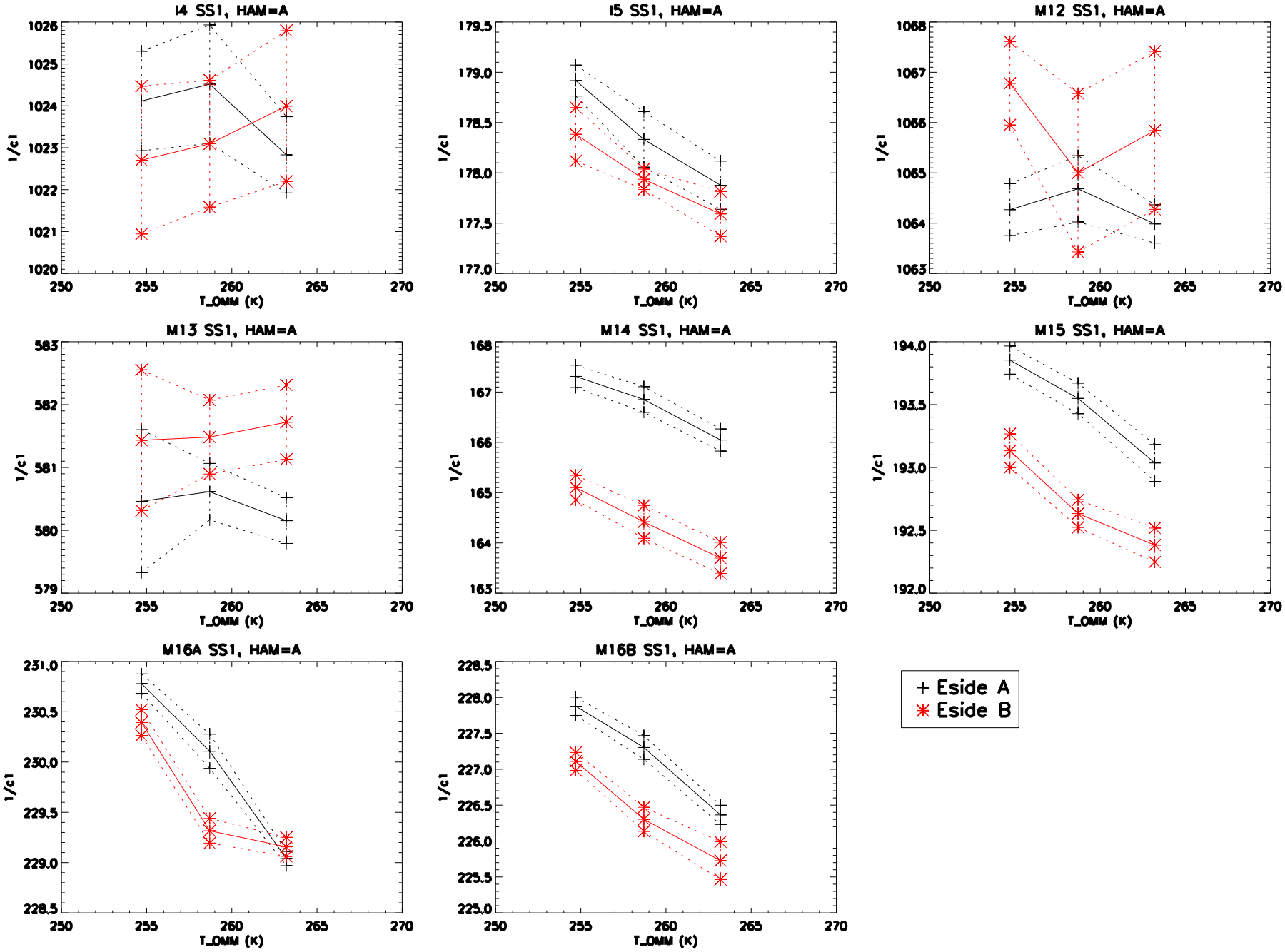
# Temperature Variation in 1/c1



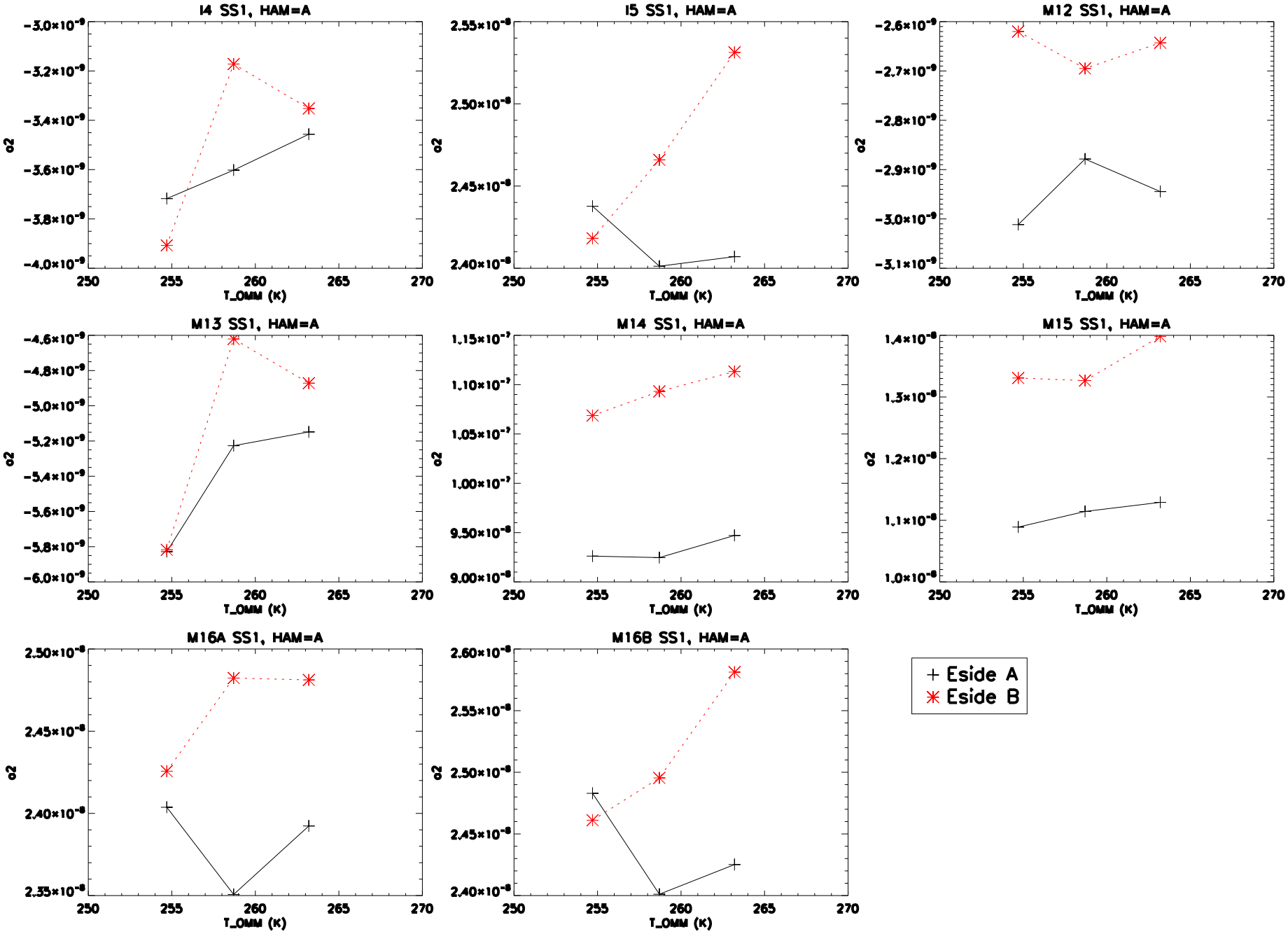
# Temperature Variation in 1/c1



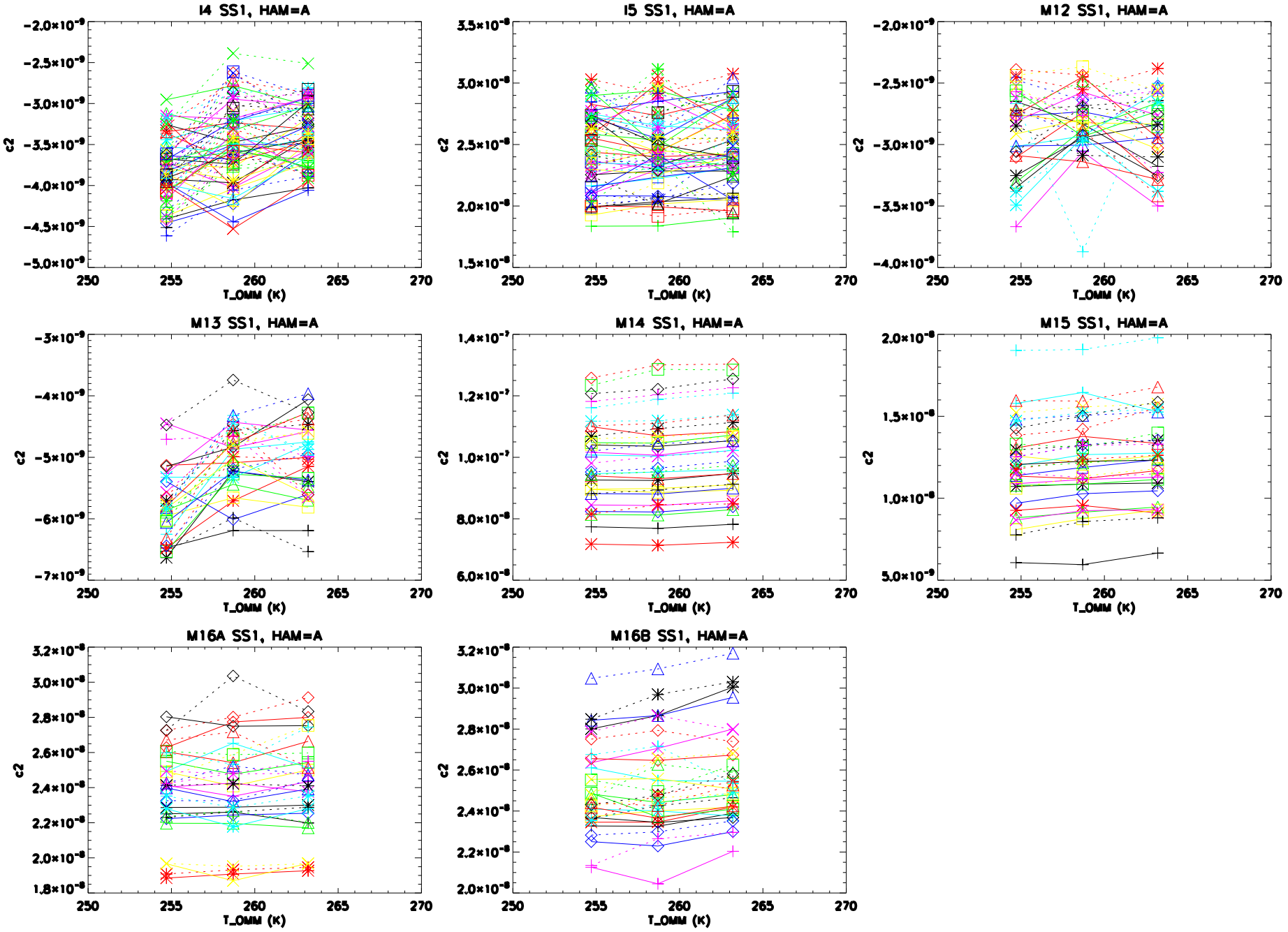
# Temperature Variation in 1/c1



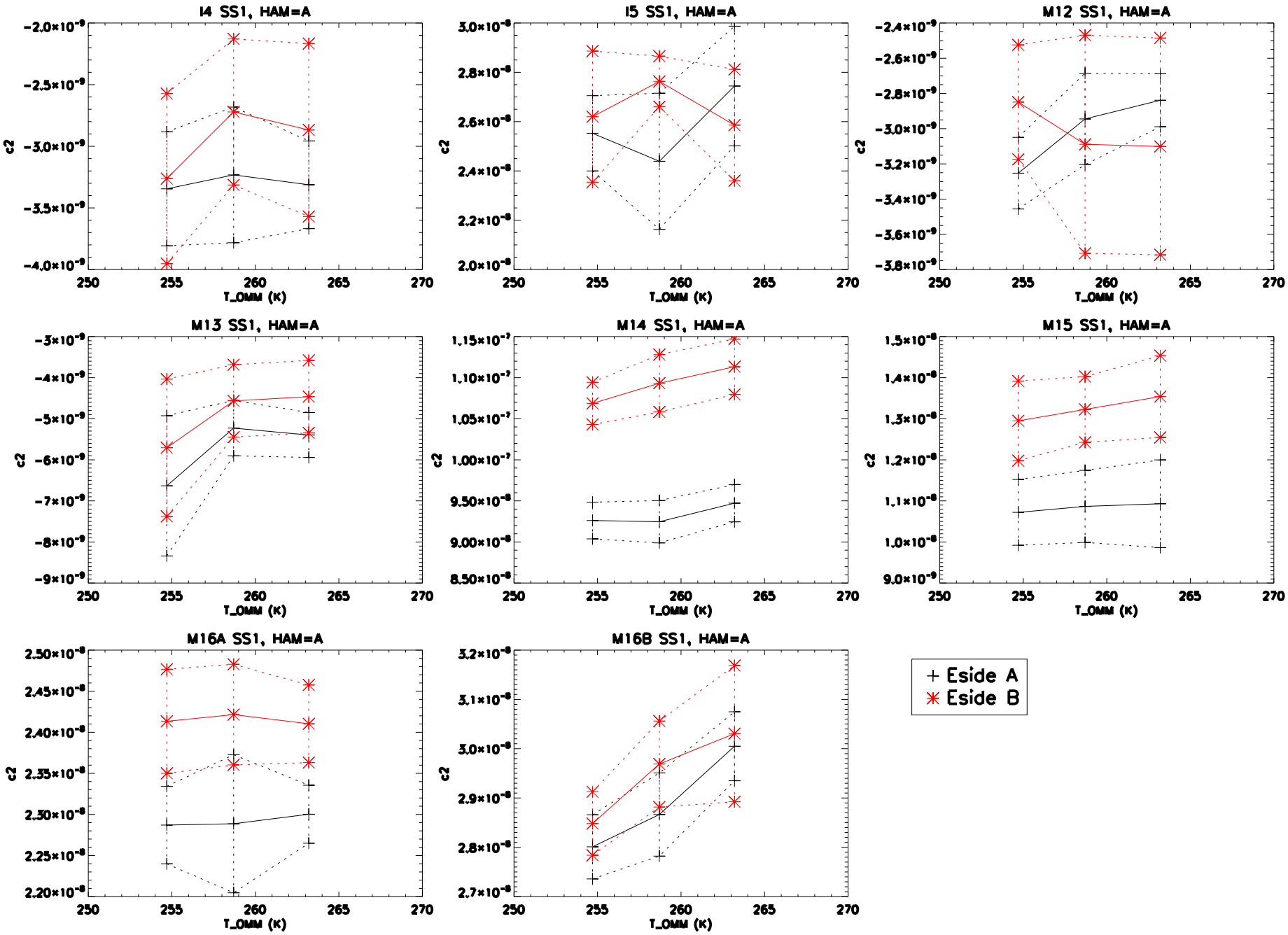
# Temperature Variation in a2



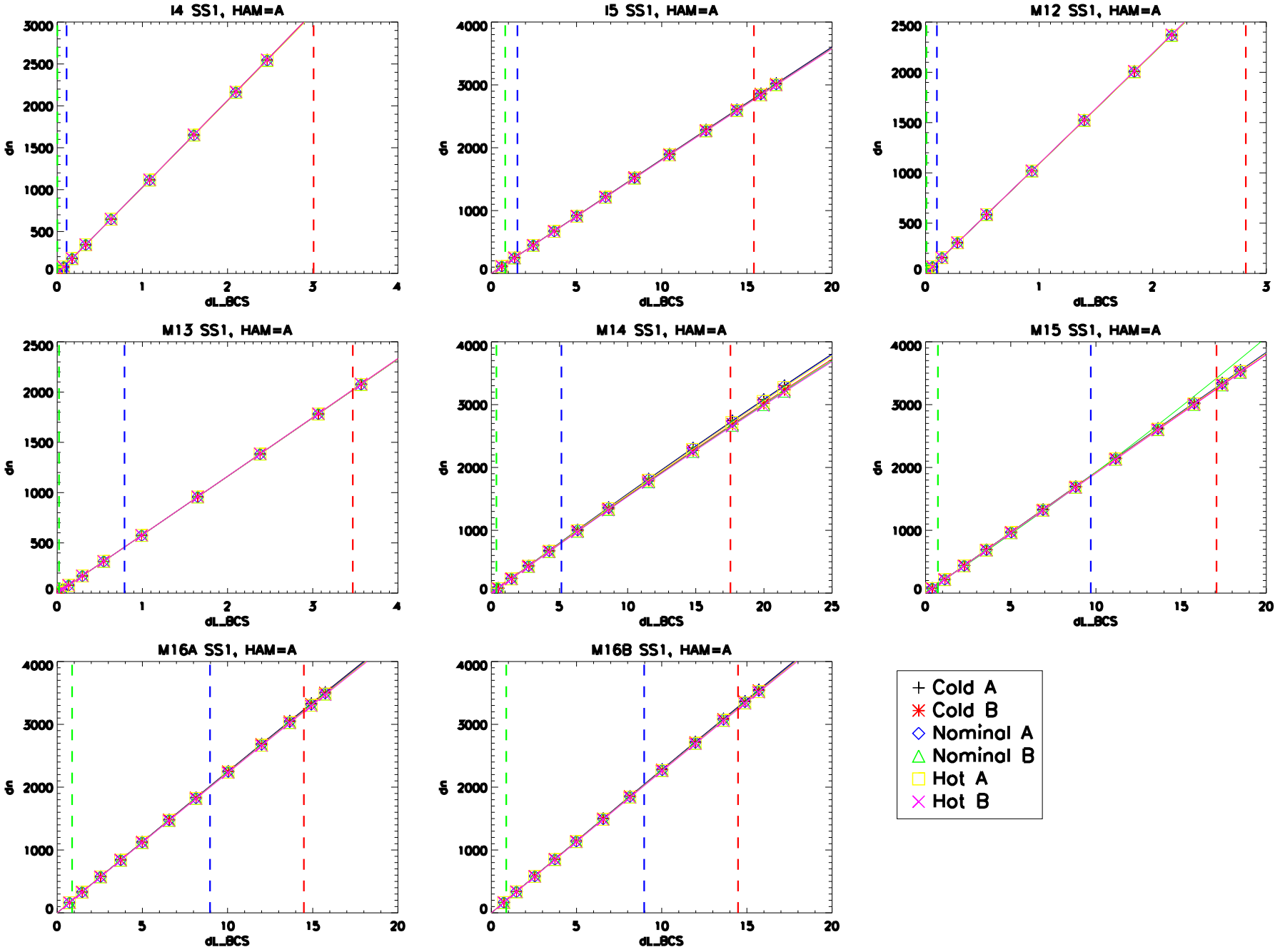
# Temperature Variation in c2

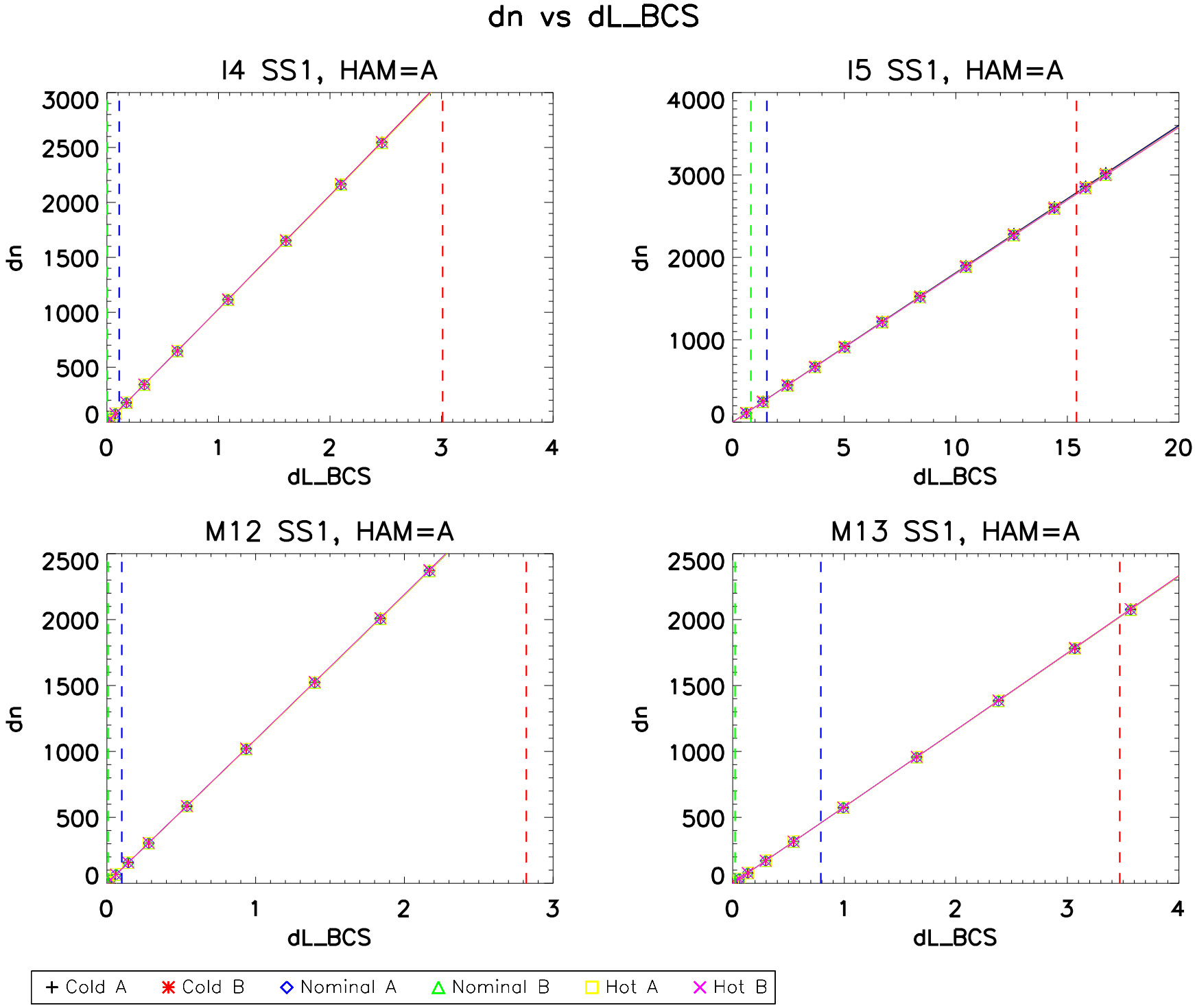


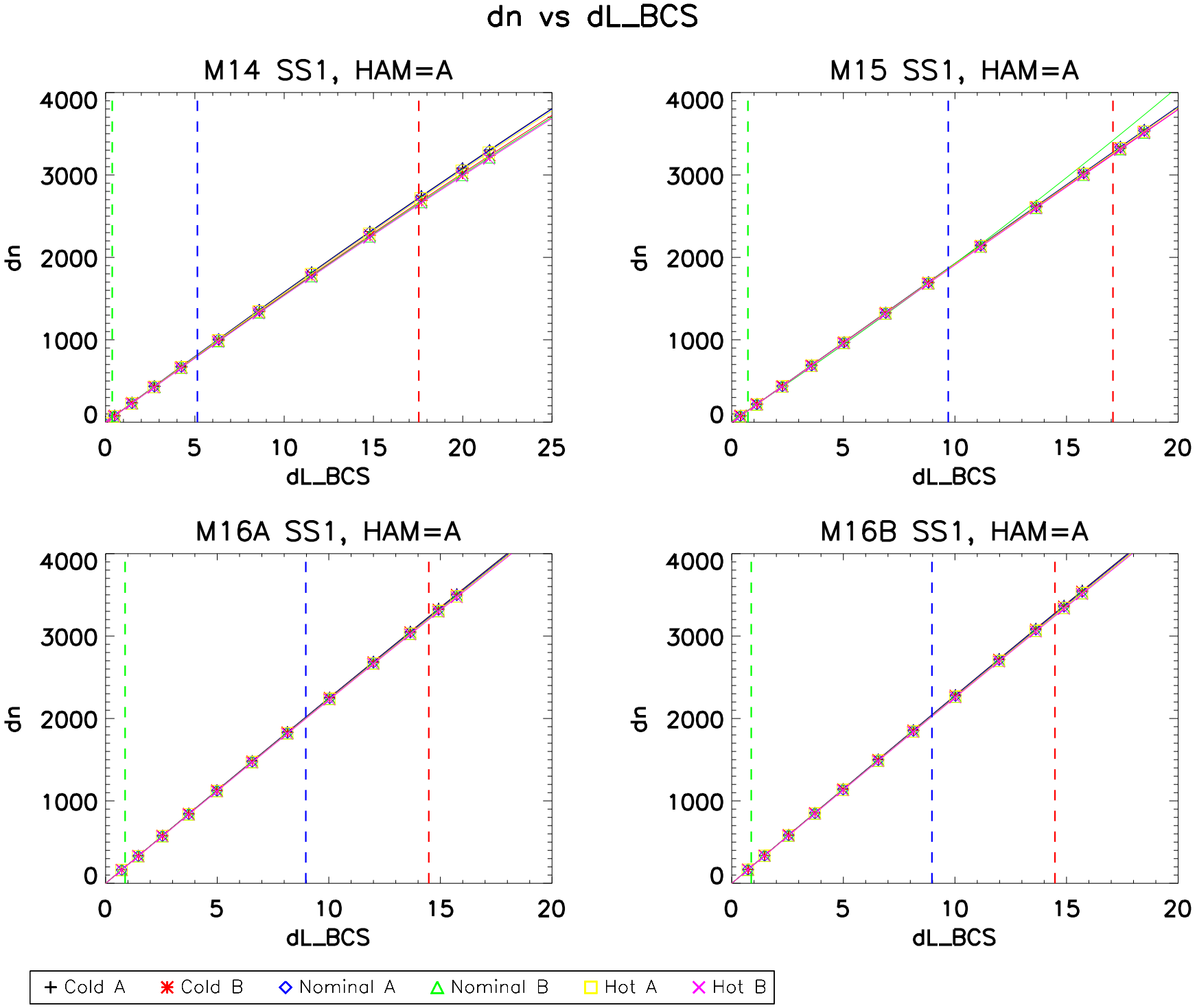
# Temperature Variation in c2



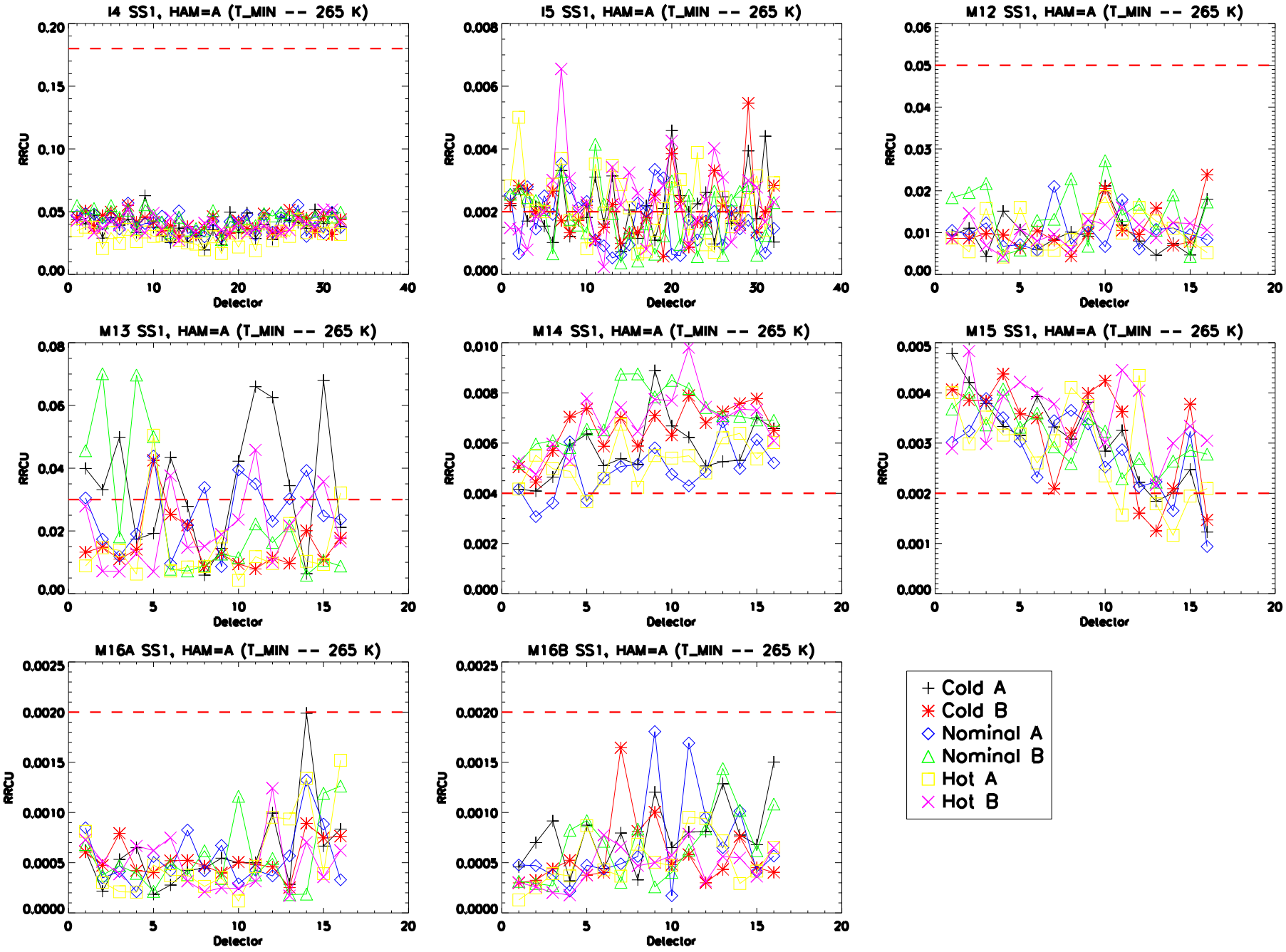
# dn vs dL_BCS


I4 SS1, HAM=A
I5 SS1, HAM=A
M12 SS1, HAM=A
M13 SS1, HAM=A
M14 SS1, HAM=A
M15 SS1, HAM=A
M16A SS1, HAM=A
M16B SS1, HAM=A
dn
dL_BCS
Cold A
Cold B
Nominal A
Nominal B
Hot A
Hot B

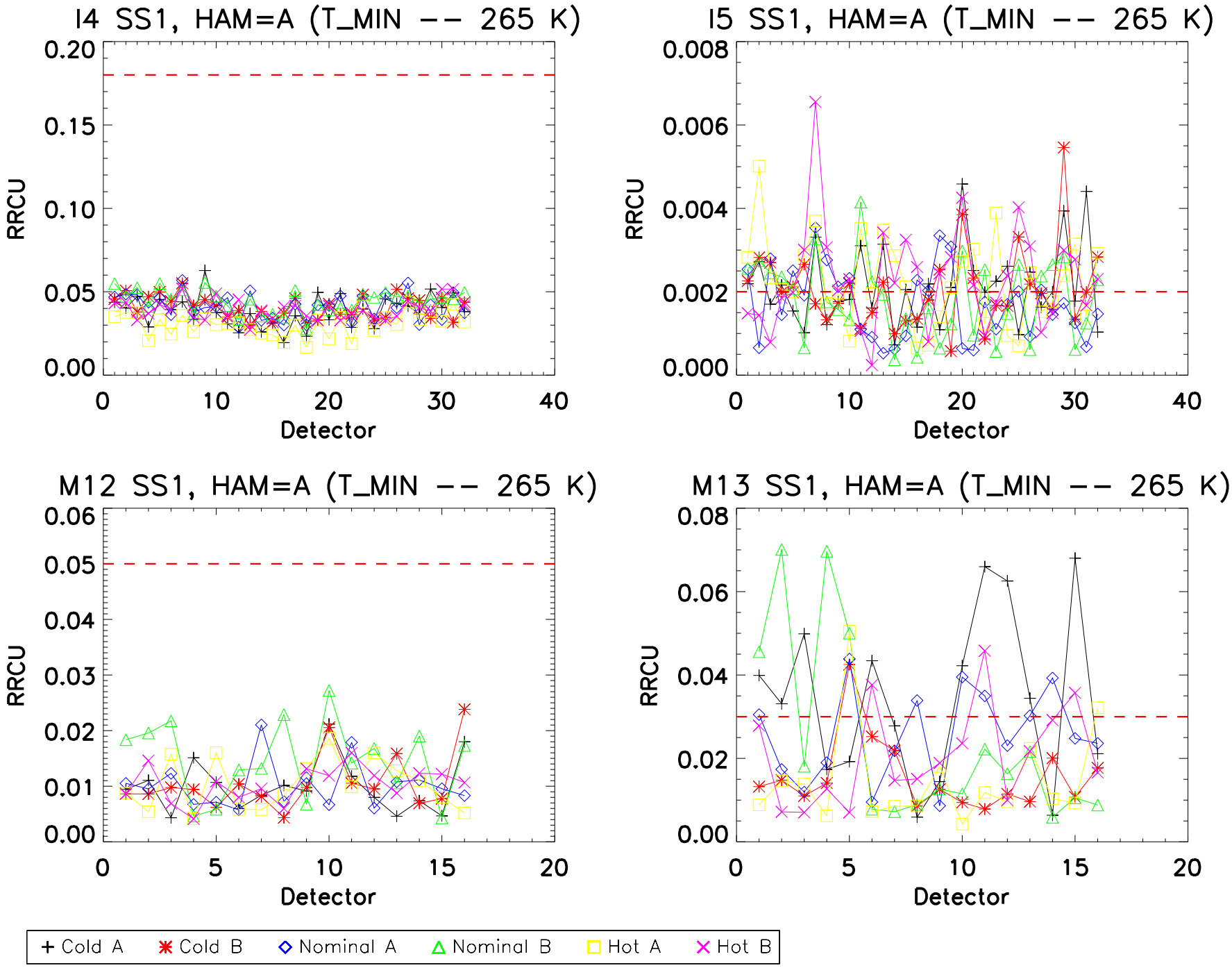

dn vs dL_BCS
I4 SS1, HAM=A
I5 SS1, HAM=A
M12 SS1, HAM=A
M13 SS1, HAM=A
dn
dL_BCS
Cold A
Cold B
Nominal A
Nominal B
Hot A
Hot B


dn vs dL_BCS
M14 SS1, HAM=A
M15 SS1, HAM=A
M16A SS1, HAM=A
M16B SS1, HAM=A
dn
dL_BCS
0
1000
2000
3000
4000
0
5
10
15
20
25
Cold A
Cold B
Nominal A
Nominal B
Hot A
Hot B

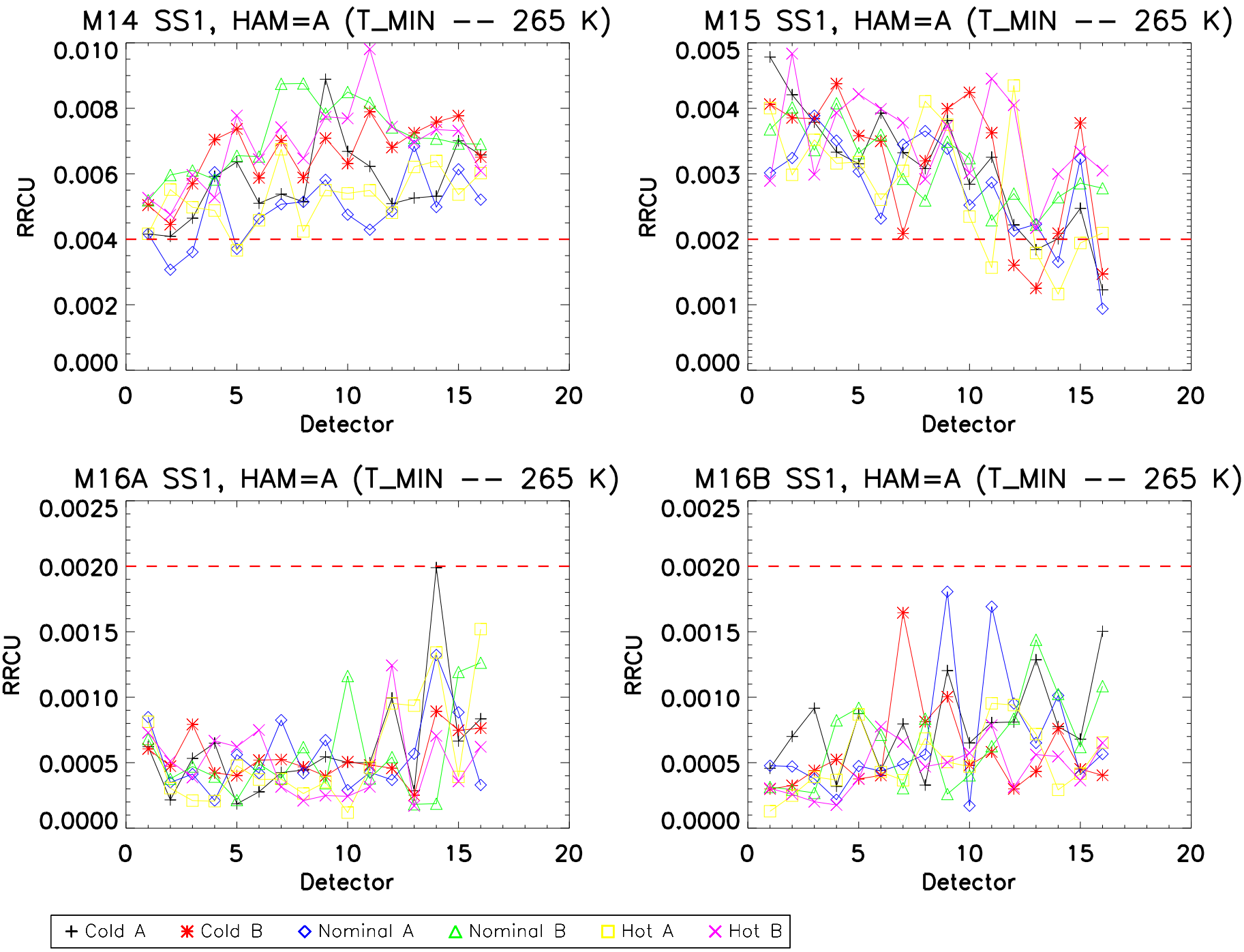
# Detector Variation in RRCU



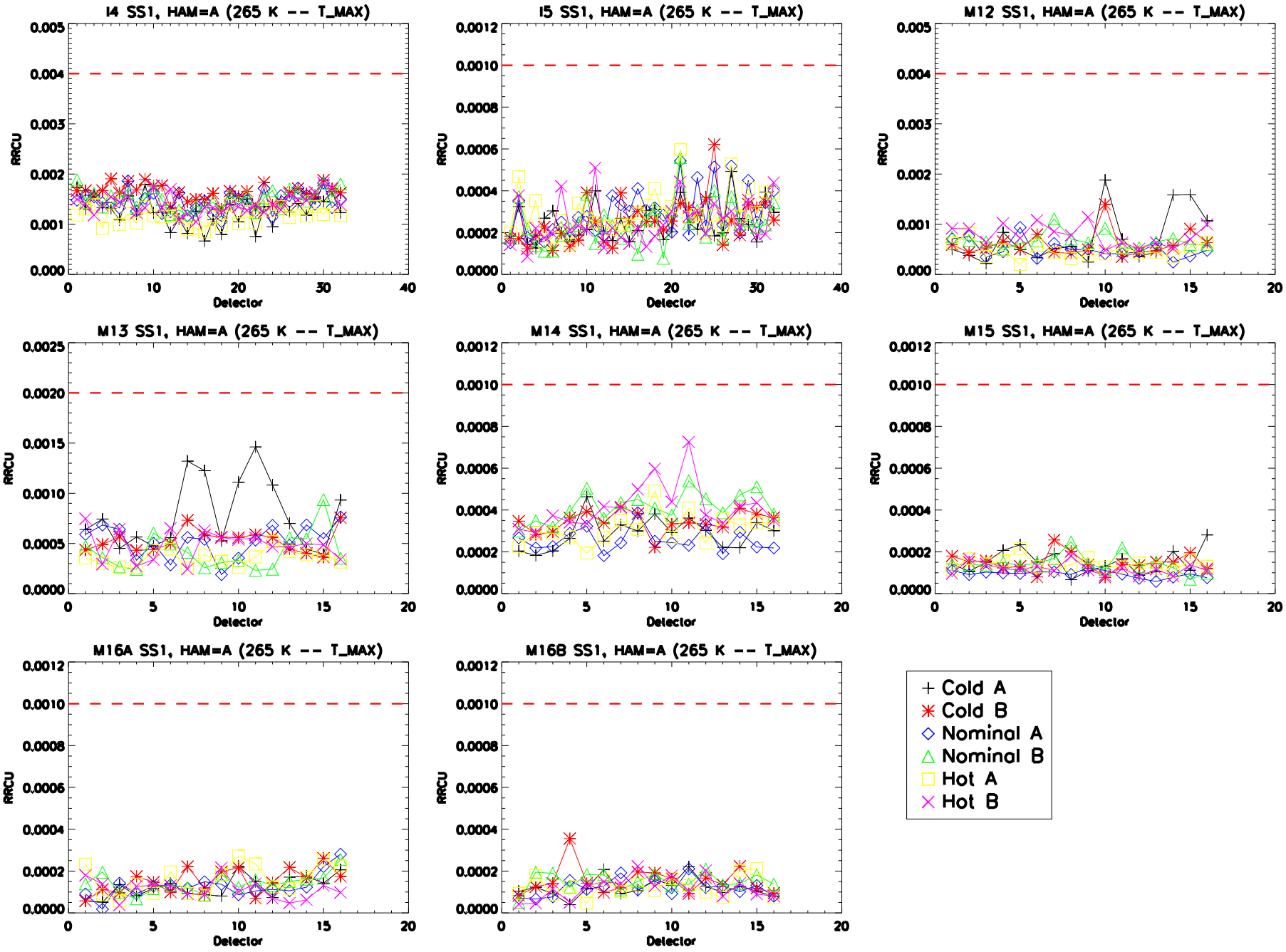
# Detector Variation in RRCU



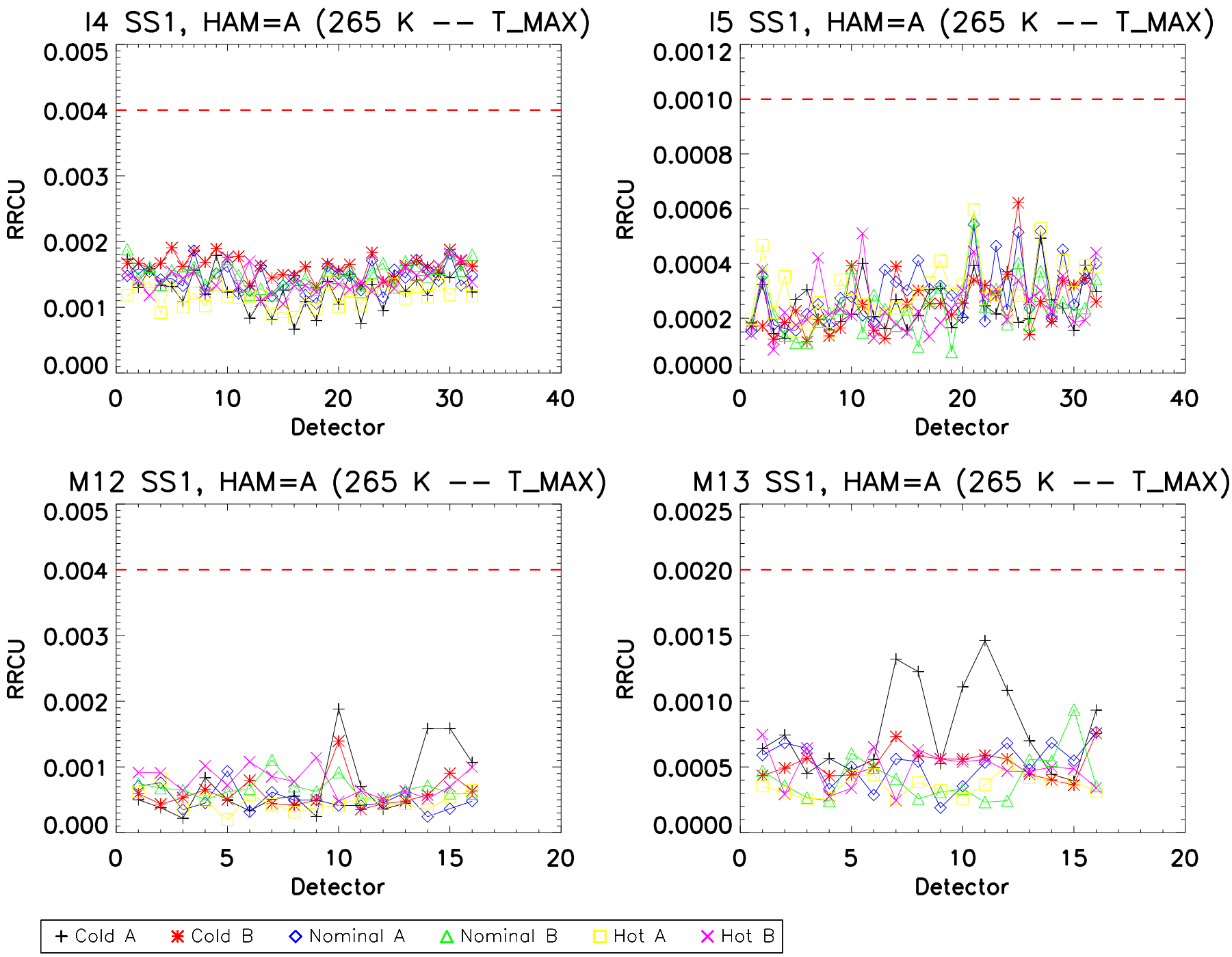
# Detector Variation in RRCU



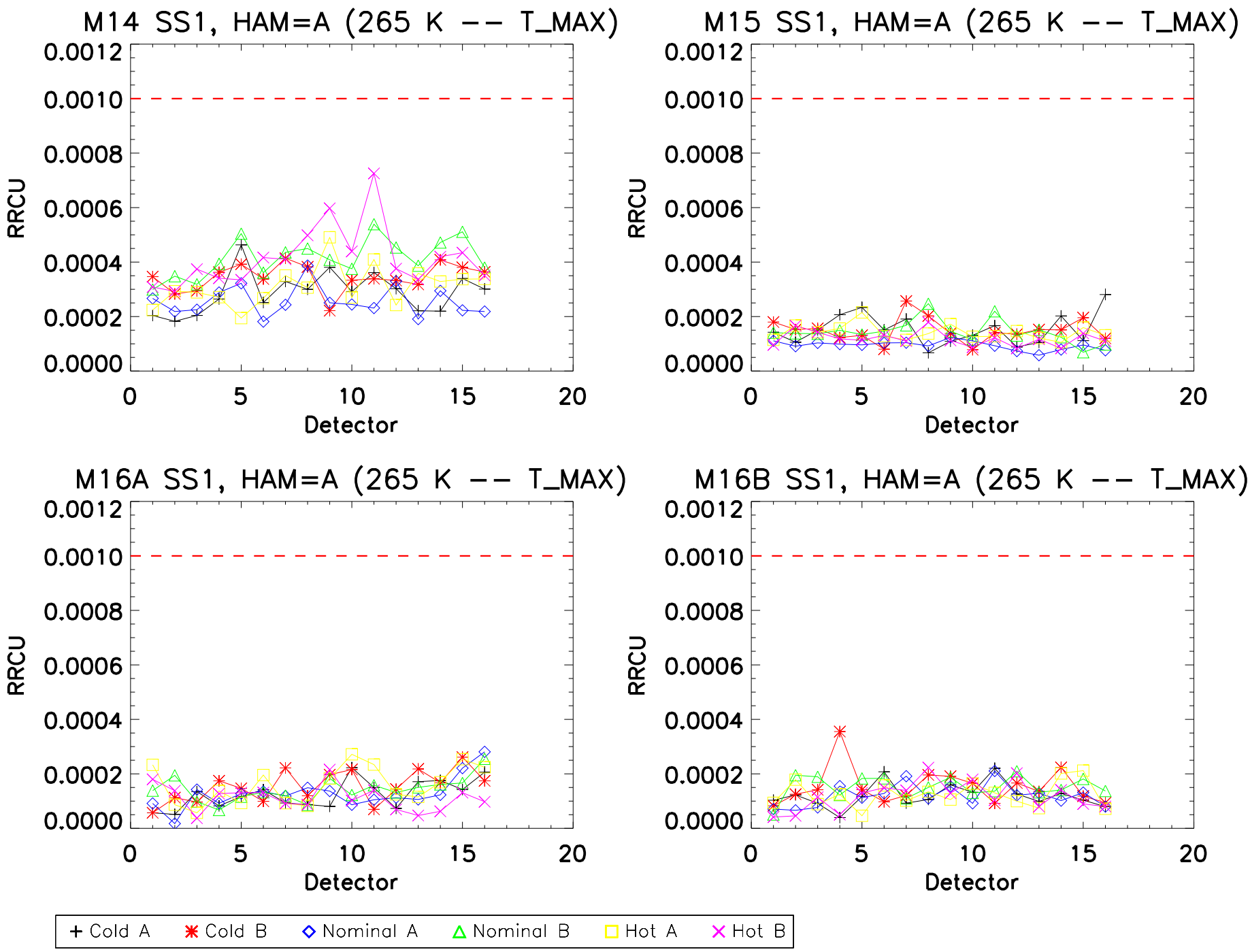
# Detector Variation in RRCU



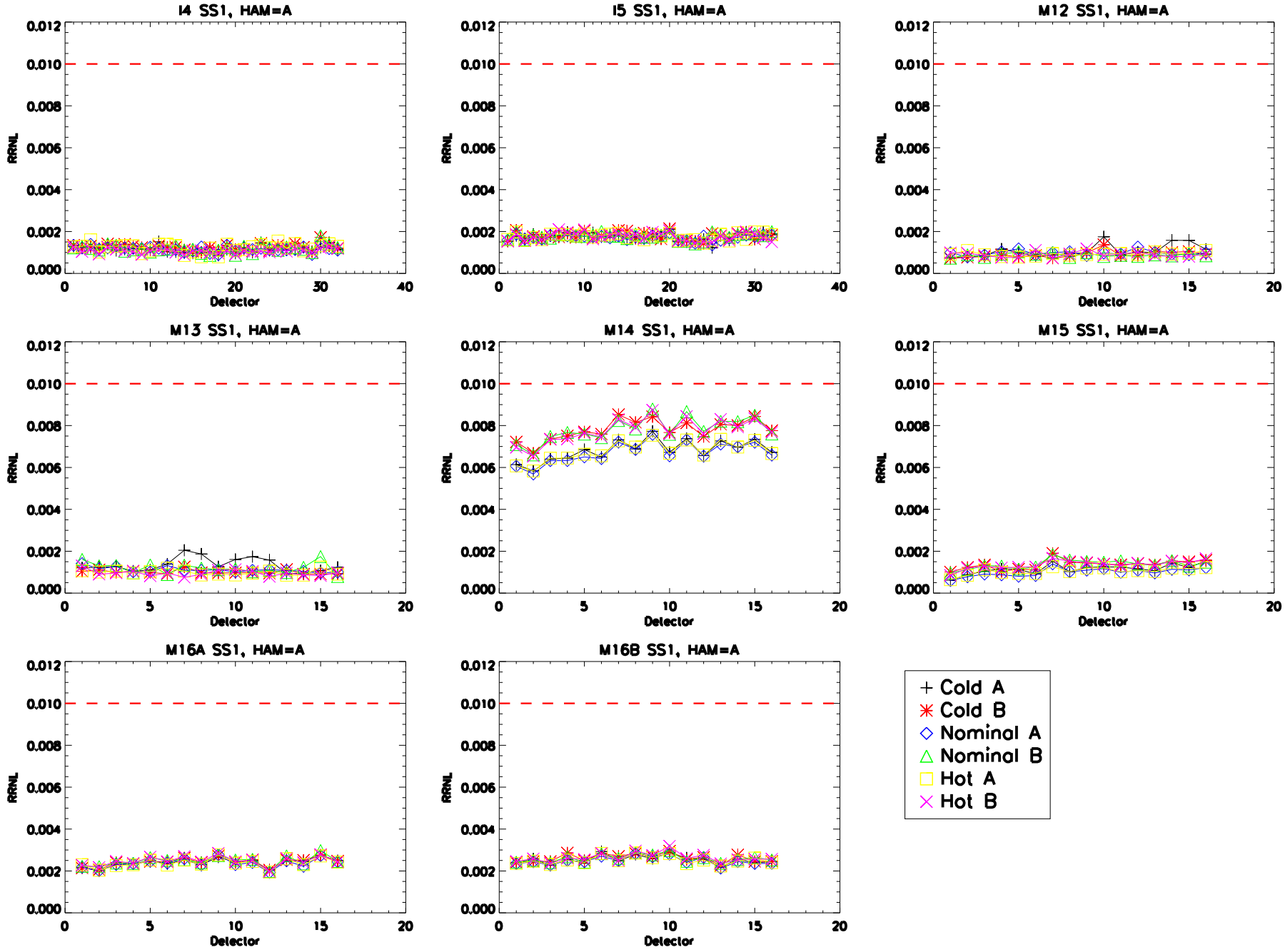
# Detector Variation in RRCU

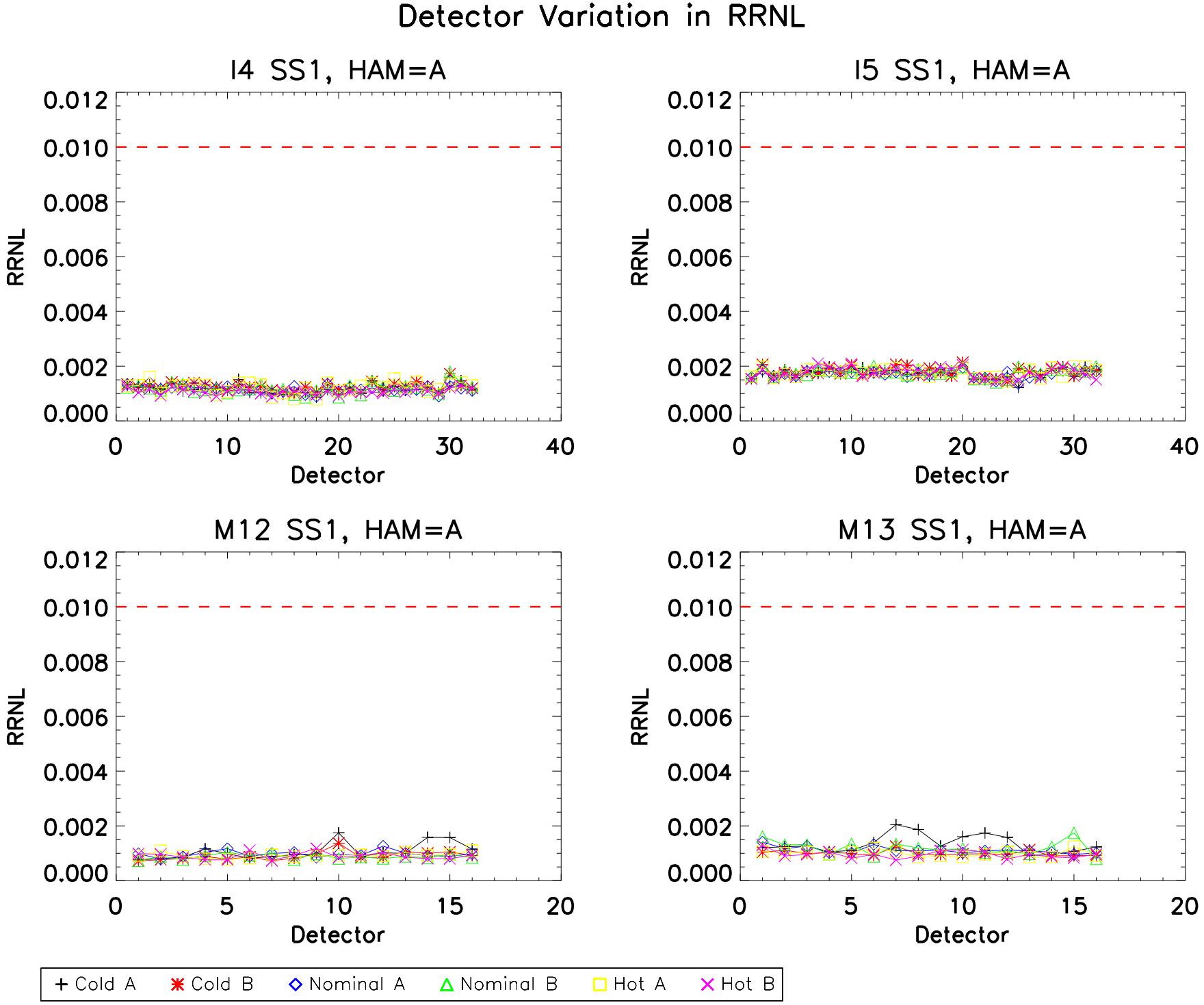


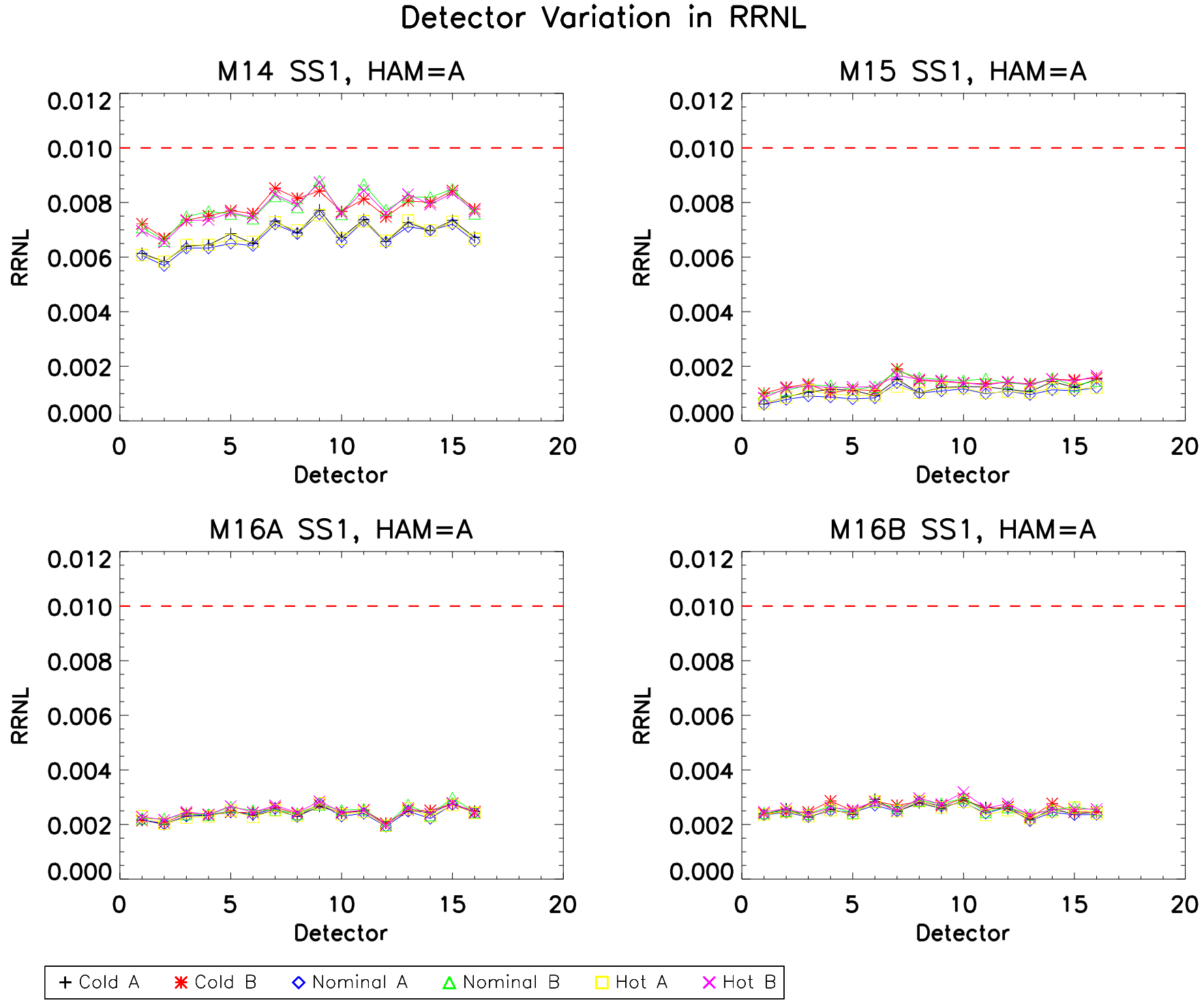
# Detector Variation in RRCU



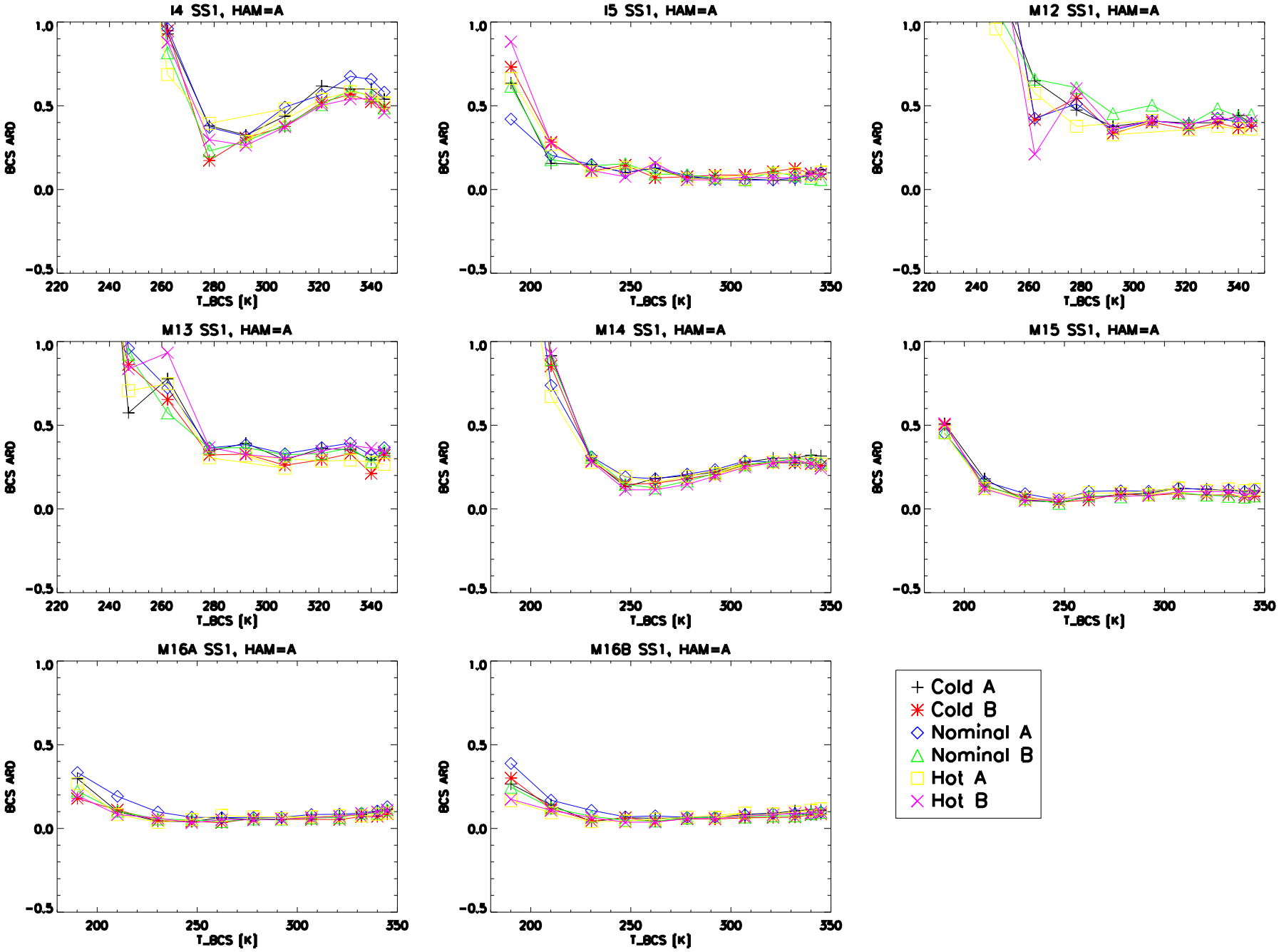
# Detector Variation in RRNL

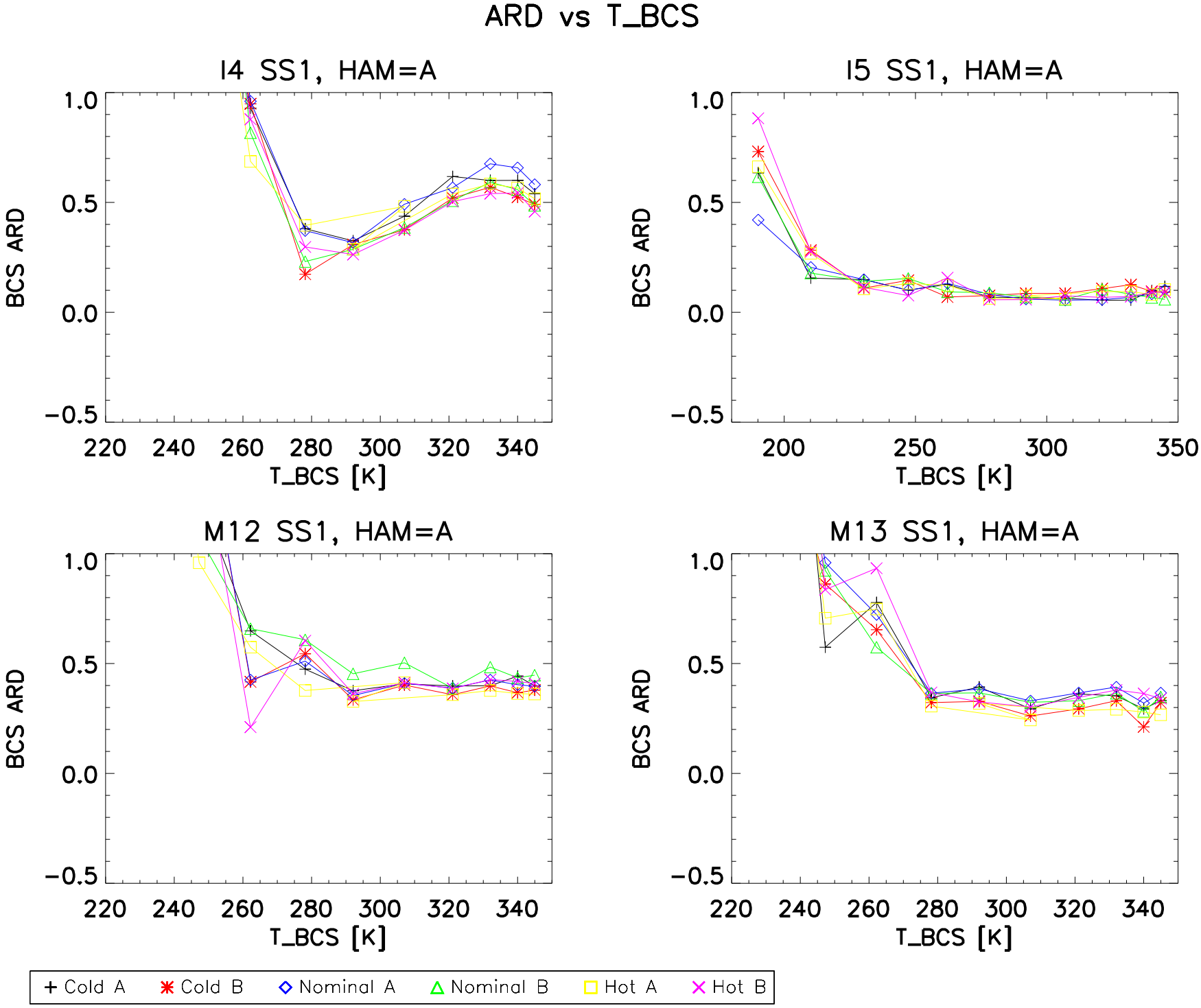


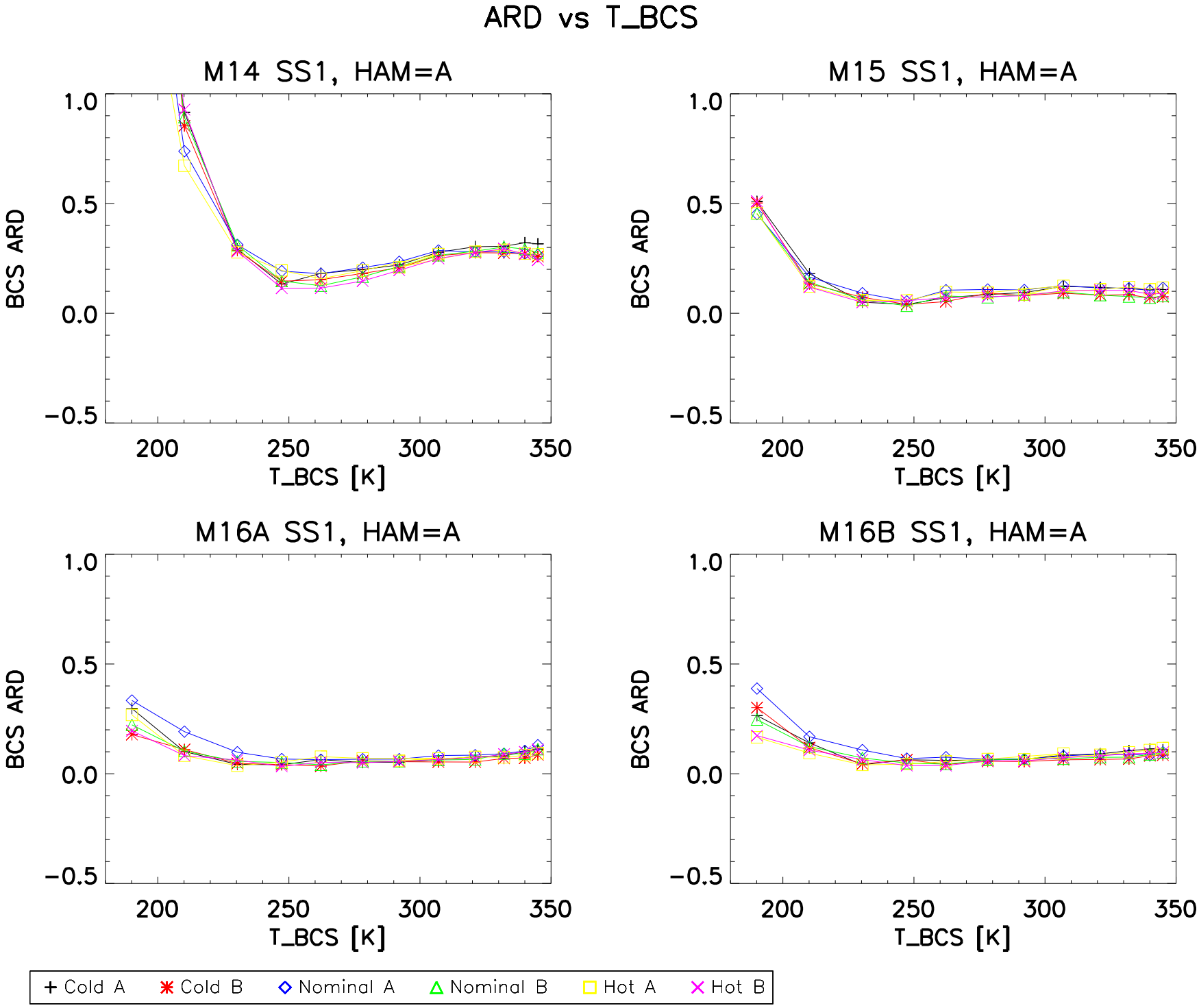

Detector Variation in RRNL
I4 SS1, HAM=A
I5 SS1, HAM=A
M12 SS1, HAM=A
M13 SS1, HAM=A
RRNL
Detector
0.012
0.010
0.008
0.006
0.004
0.002
0.000
0
5
10
15
20
30
40
Cold A
Cold B
Nominal A
Nominal B
Hot A
Hot B


Detector Variation in RRNL
M14 SS1, HAM=A
M15 SS1, HAM=A
M16A SS1, HAM=A
M16B SS1, HAM=A
RRNL
Detector
0.000
0.002
0.004
0.006
0.008
0.010
0.012
0
5
10
15
20
Cold A
Cold B
Nominal A
Nominal B
Hot A
Hot B

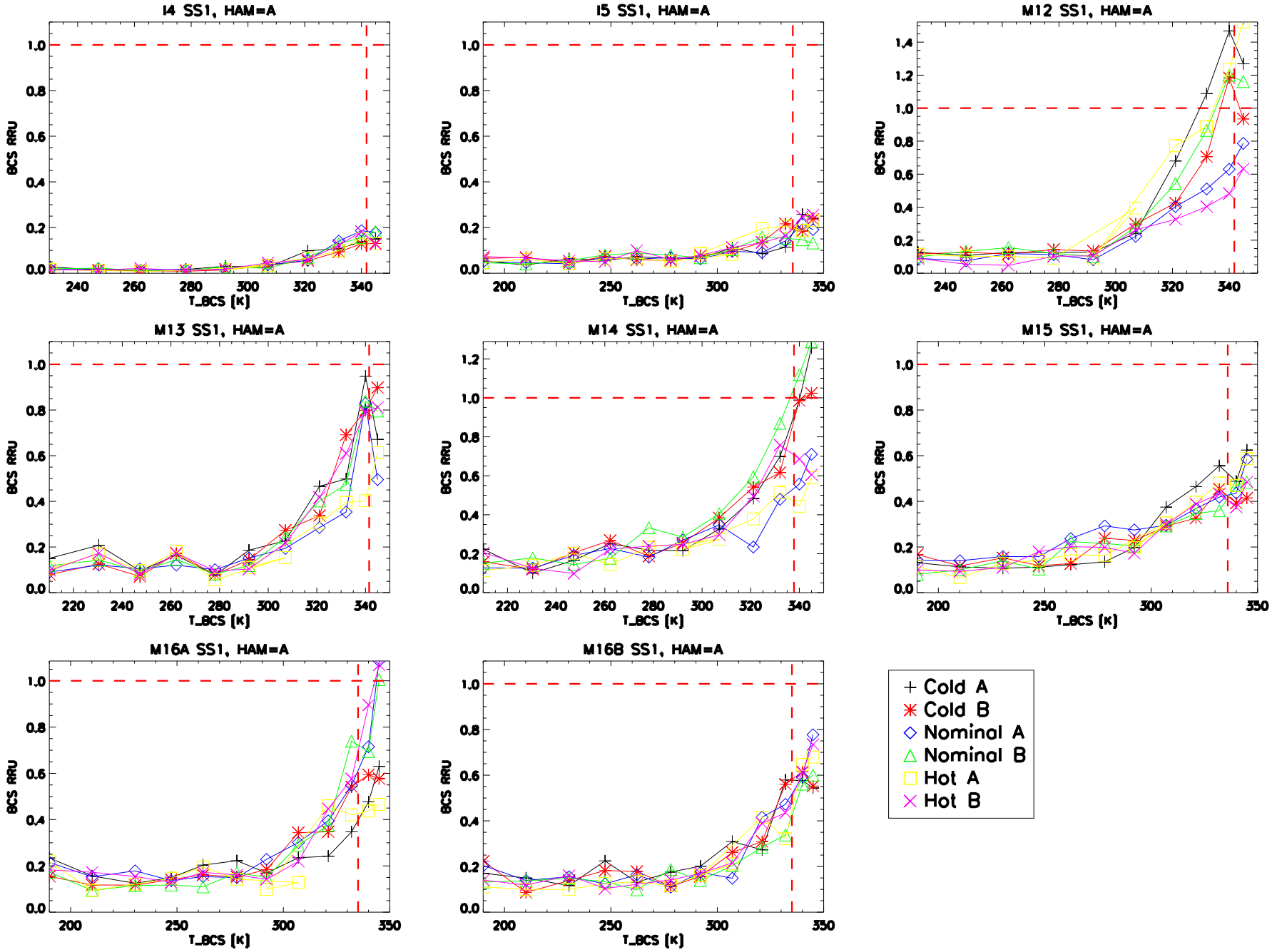
# ARD vs T_BCS


I4 SS1, HAM=A
I5 SS1, HAM=A
M12 SS1, HAM=A
M13 SS1, HAM=A
M14 SS1, HAM=A
M15 SS1, HAM=A
M16A SS1, HAM=A
M16B SS1, HAM=A
BCS ARD
T_BCS (K)
Cold A
Cold B
Nominal A
Nominal B
Hot A
Hot B

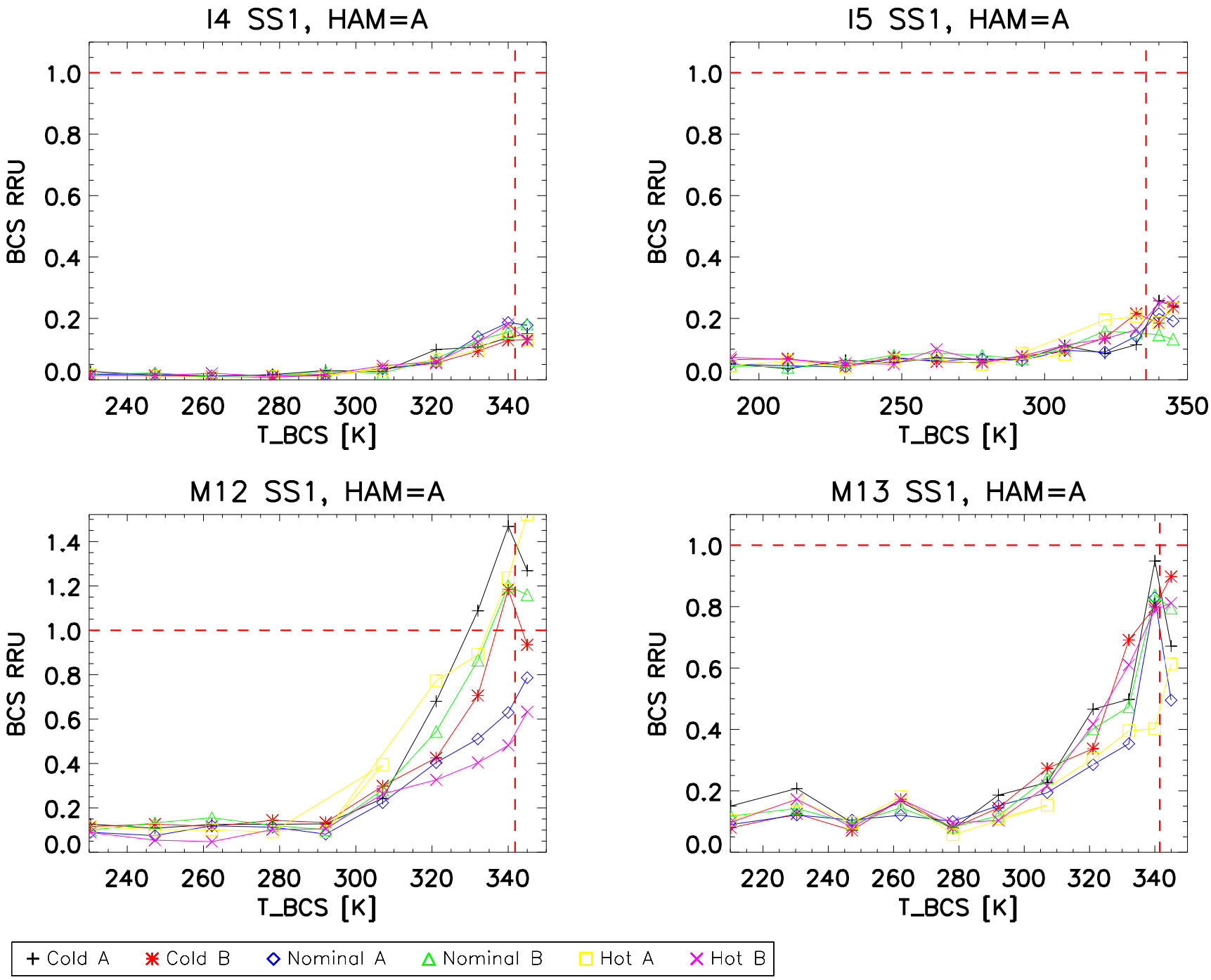

ARD vs T_BCS
I4 SS1, HAM=A
I5 SS1, HAM=A
M12 SS1, HAM=A
M13 SS1, HAM=A
BCS ARD
T_BCS [K]
1.0
0.5
0.0
−0.5
220
240
260
280
300
320
340
200
250
300
350
Cold A
Cold B
Nominal A
Nominal B
Hot A
Hot B


ARD vs T_BCS
M14 SS1, HAM=A
M15 SS1, HAM=A
M16A SS1, HAM=A
M16B SS1, HAM=A
BCS ARD
T_BCS [K]
1.0
0.5
0.0
−0.5
200
250
300
350
Cold A
Cold B
Nominal A
Nominal B
Hot A
Hot B

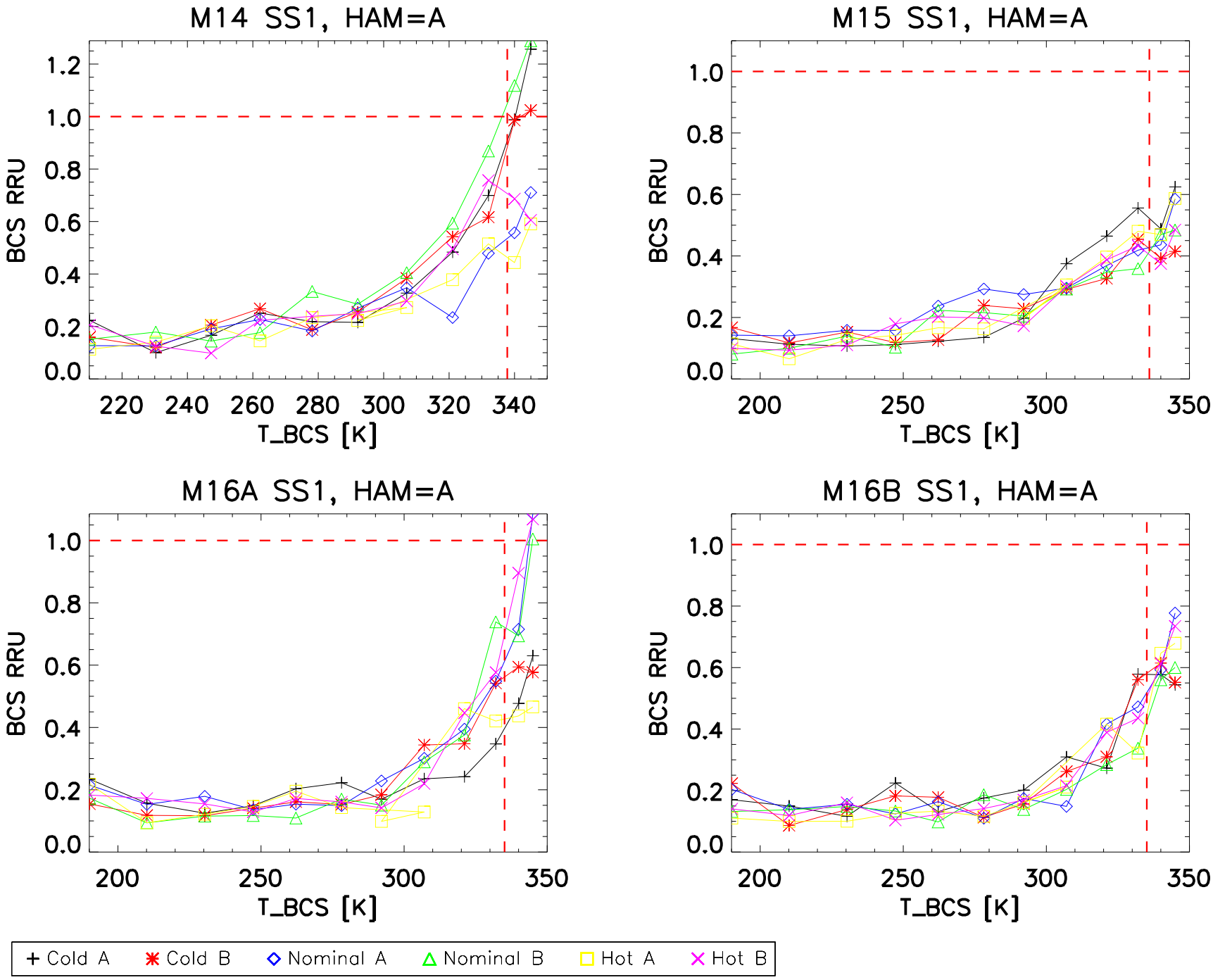
# RRU in T_BCS


I4 SS1, HAM=A
I5 SS1, HAM=A
M12 SS1, HAM=A
M13 SS1, HAM=A
M14 SS1, HAM=A
M15 SS1, HAM=A
M16A SS1, HAM=A
M16B SS1, HAM=A
BCS RRU
T_BCS (K)
Cold A
Cold B
Nominal A
Nominal B
Hot A
Hot B

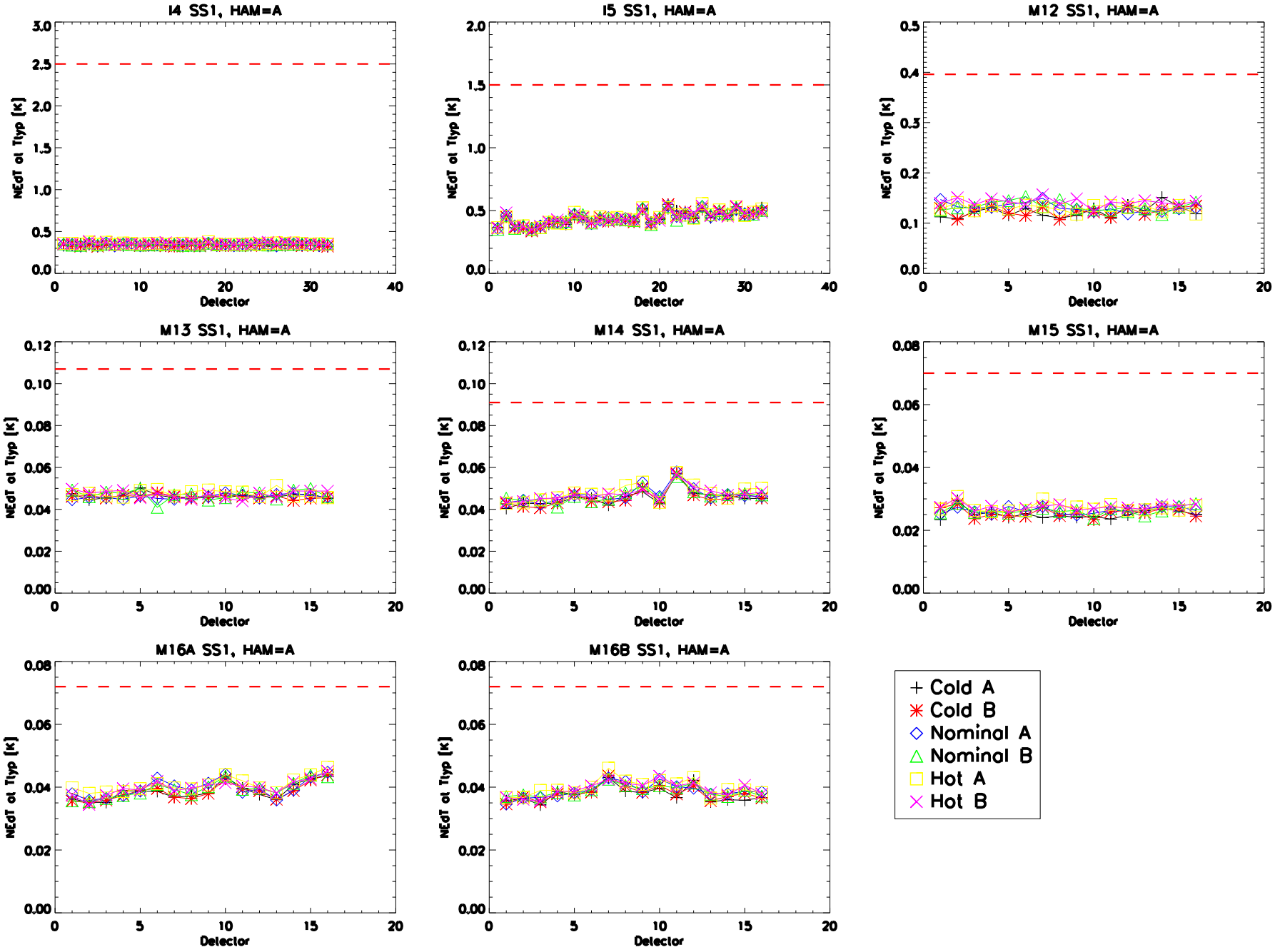
# RRU in T_BCS

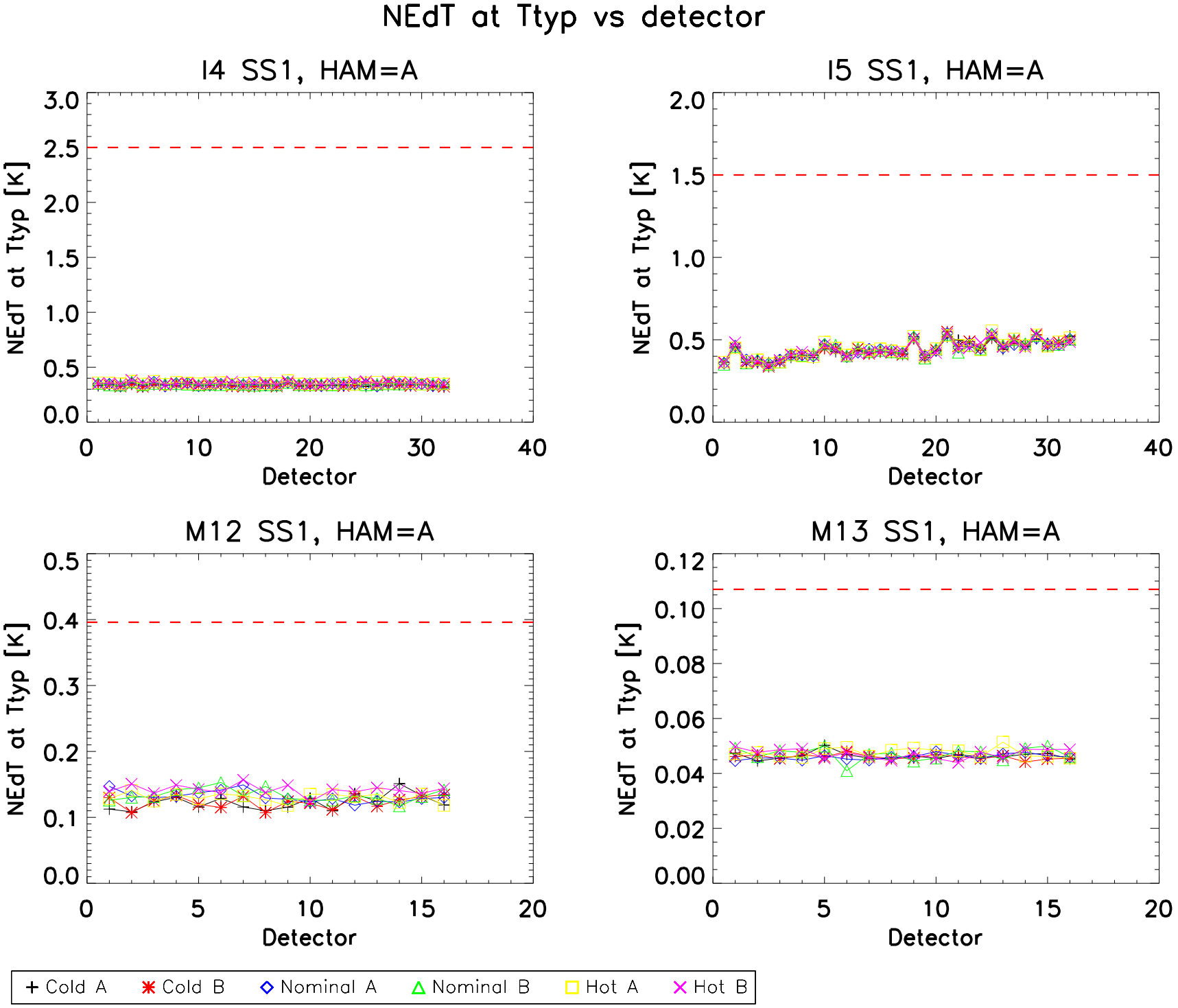

I4 SS1, HAM=A
I5 SS1, HAM=A
M12 SS1, HAM=A
M13 SS1, HAM=A
BCS RRU
T_BCS [K]
Cold A
Cold B
Nominal A
Nominal B
Hot A
Hot B

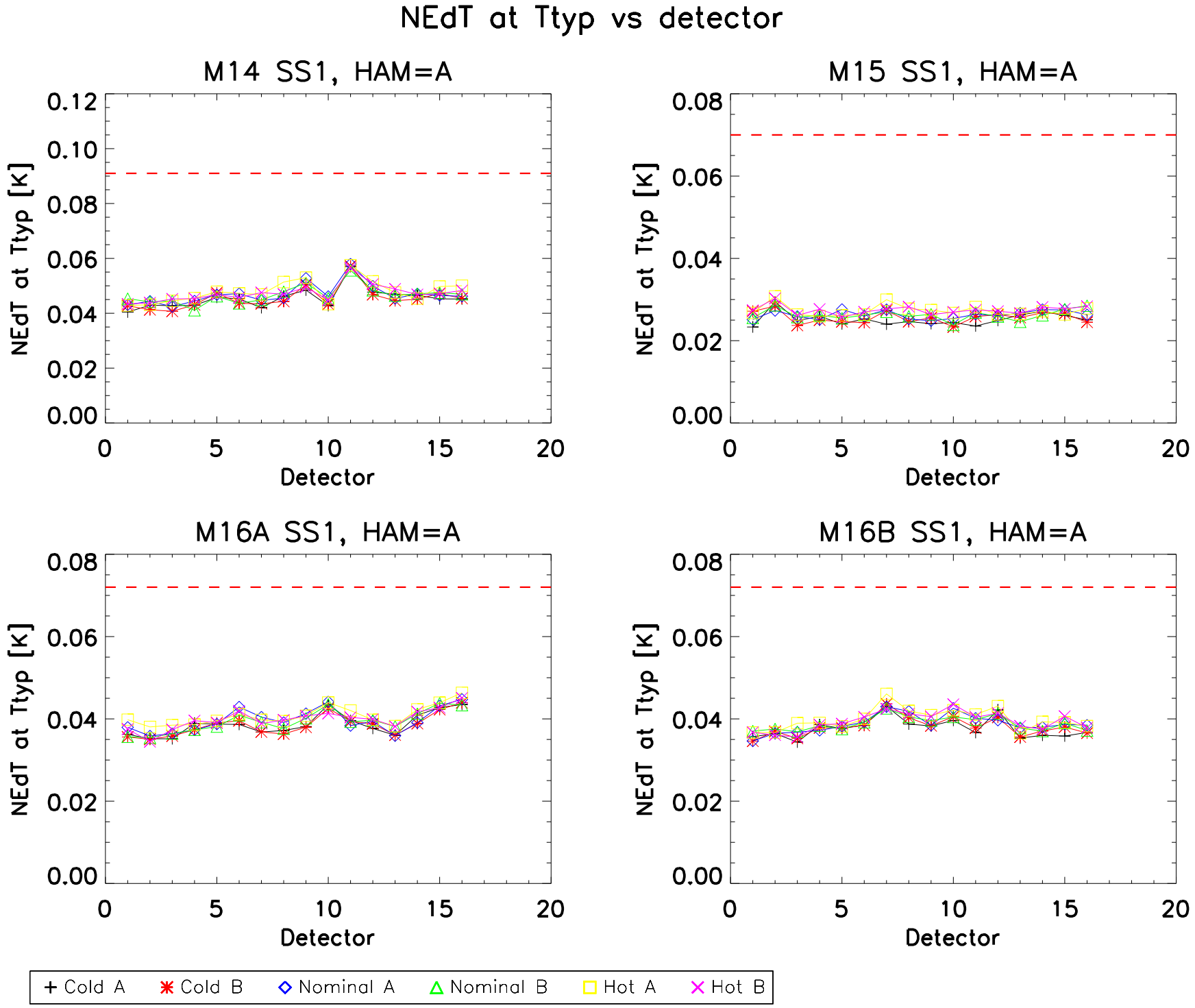
# RRU in T_BCS


M14 SS1, HAM=A
M15 SS1, HAM=A
M16A SS1, HAM=A
M16B SS1, HAM=A
BCS RRU
T_BCS [K]
Cold A
Cold B
Nominal A
Nominal B
Hot A
Hot B

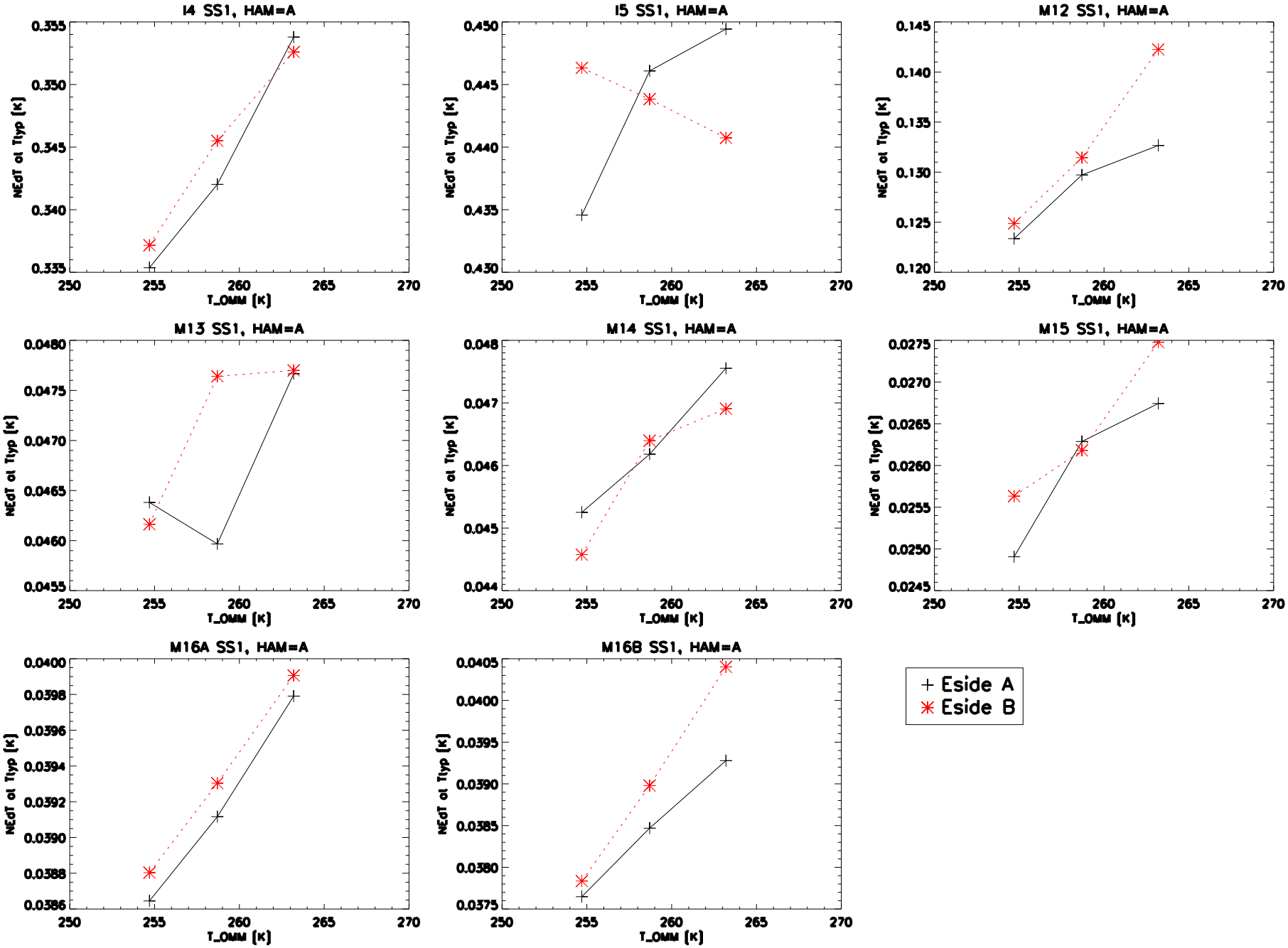
# NEdT at Ttyp vs detector



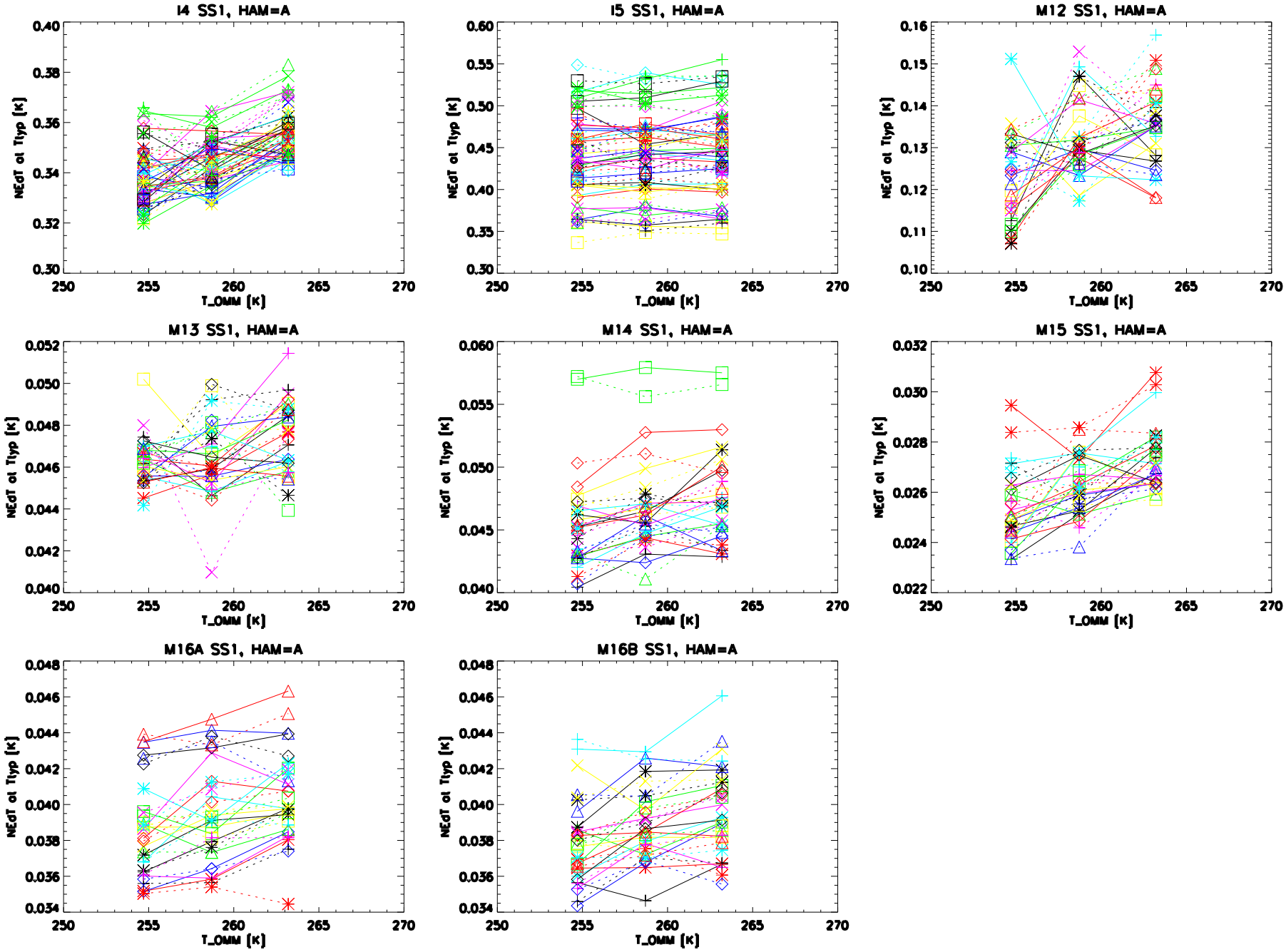

NEdT at Ttyp vs detector
I4 SS1, HAM=A
I5 SS1, HAM=A
M12 SS1, HAM=A
M13 SS1, HAM=A
NEdT at Ttyp [K]
Detector
Cold A
Cold B
Nominal A
Nominal B
Hot A
Hot B


NEdT at Ttyp vs detector
M14 SS1, HAM=A
M15 SS1, HAM=A
M16A SS1, HAM=A
M16B SS1, HAM=A
NEdT at Ttyp [K]
Detector
0.00
0.02
0.04
0.06
0.08
0.10
0.12
0
5
10
15
20
Cold A
Cold B
Nominal A
Nominal B
Hot A
Hot B

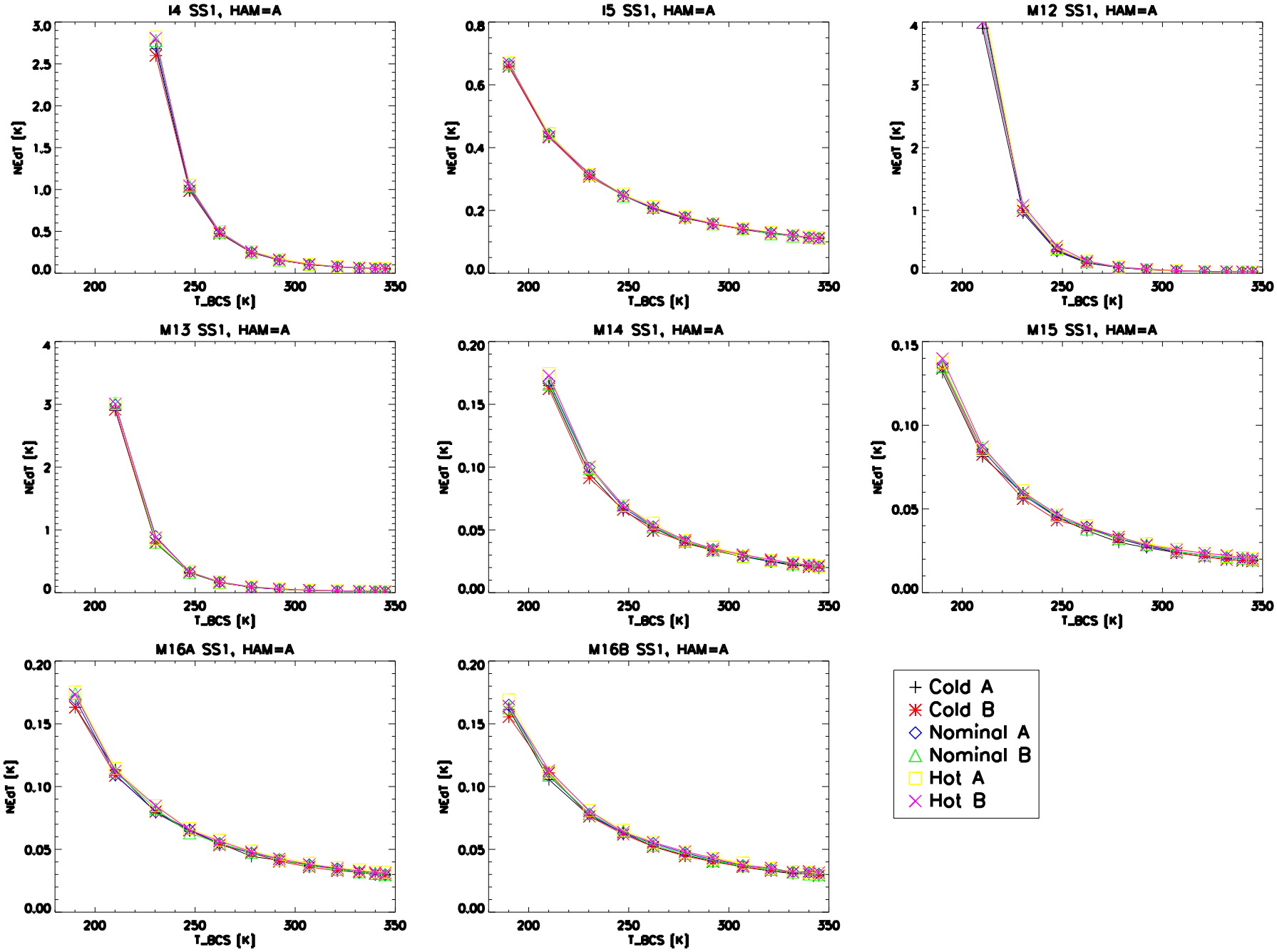
# NEdT at Ttyp vs T_OMM



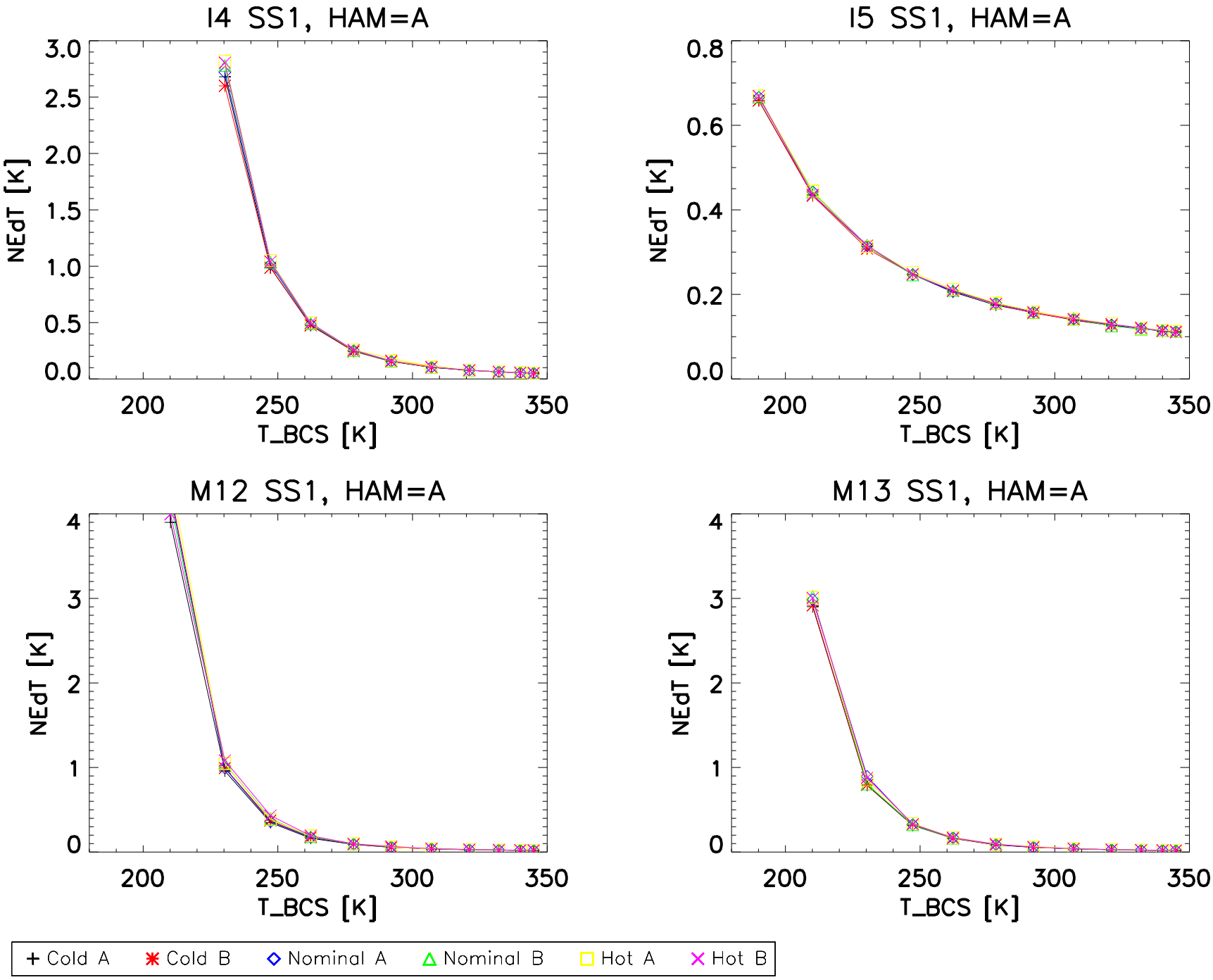
# NEdT at Ttyp vs T_OMM

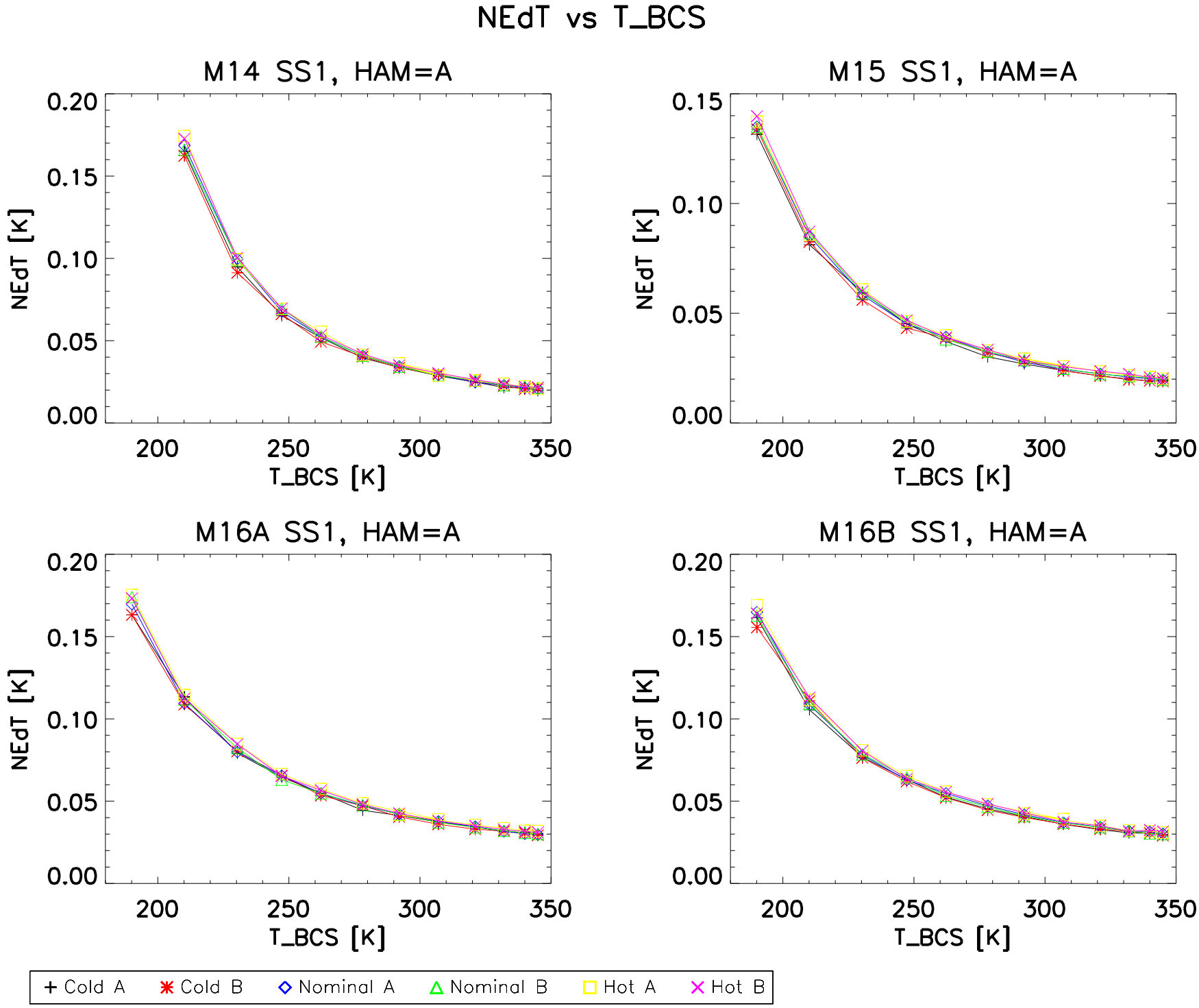


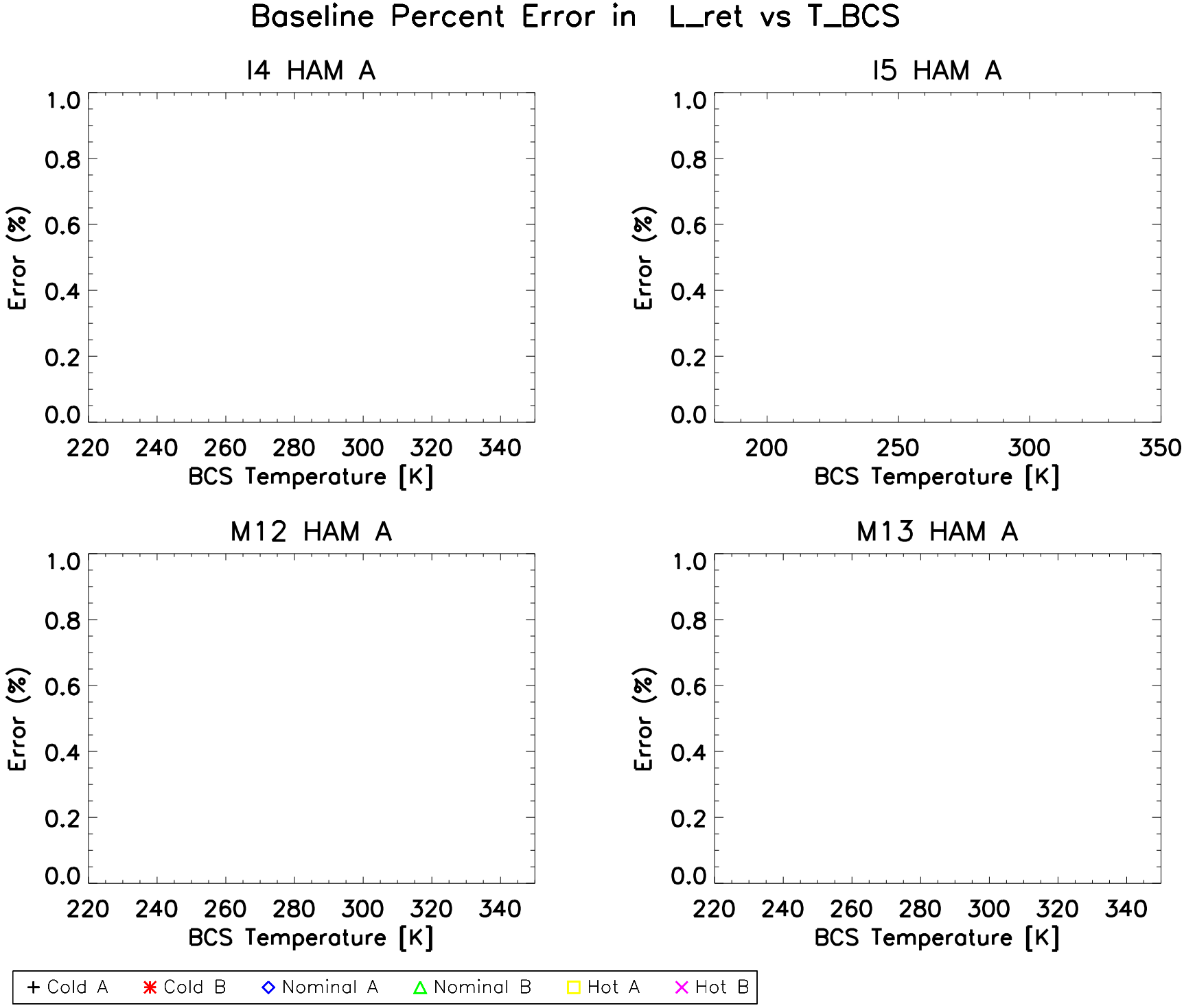
# NEdT vs T_BCS

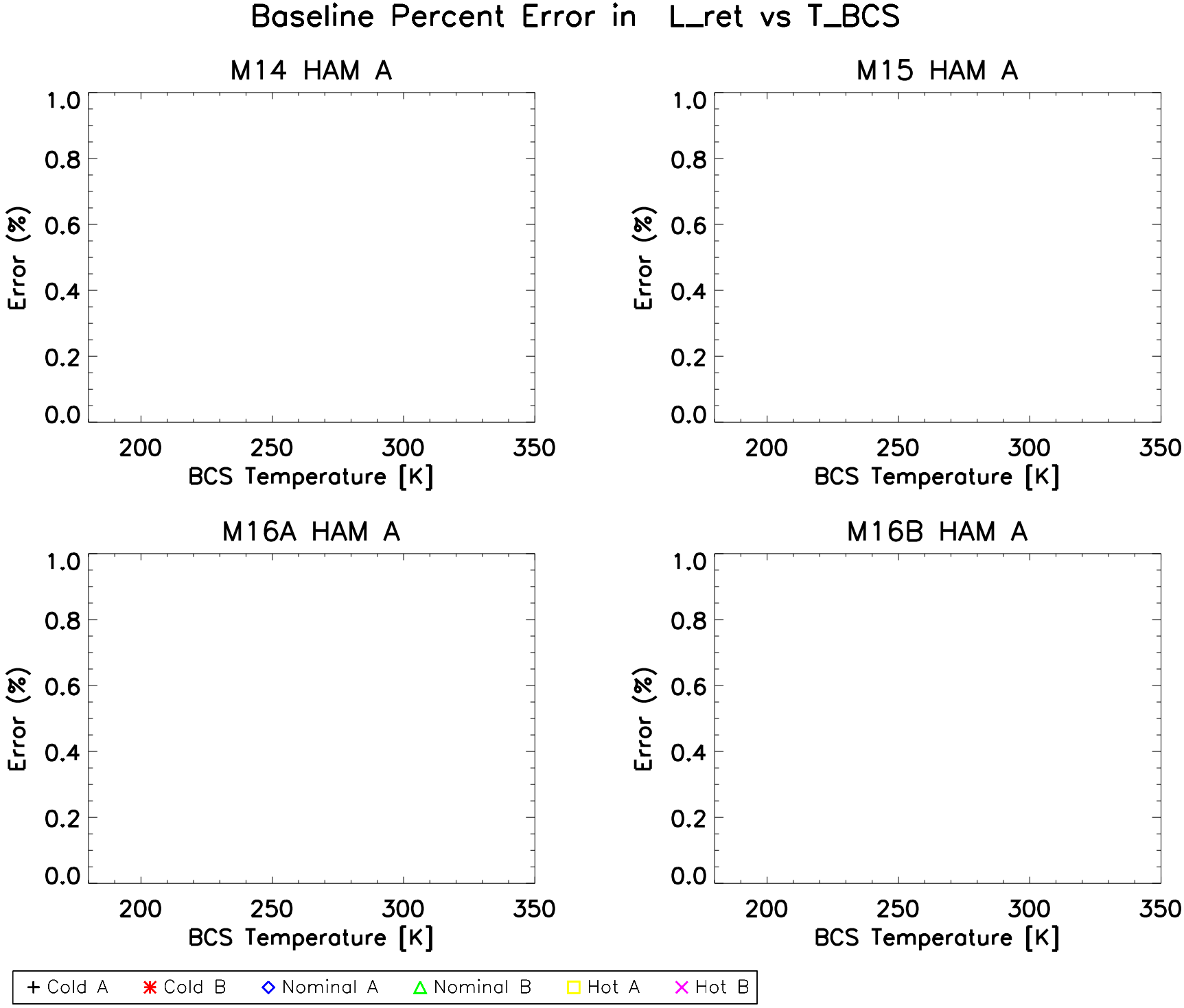

I4 SS1, HAM=A
I5 SS1, HAM=A
M12 SS1, HAM=A
M13 SS1, HAM=A
M14 SS1, HAM=A
M15 SS1, HAM=A
M16A SS1, HAM=A
M16B SS1, HAM=A
NEdT [K]
T_BCS [K]
Cold A
Cold B
Nominal A
Nominal B
Hot A
Hot B

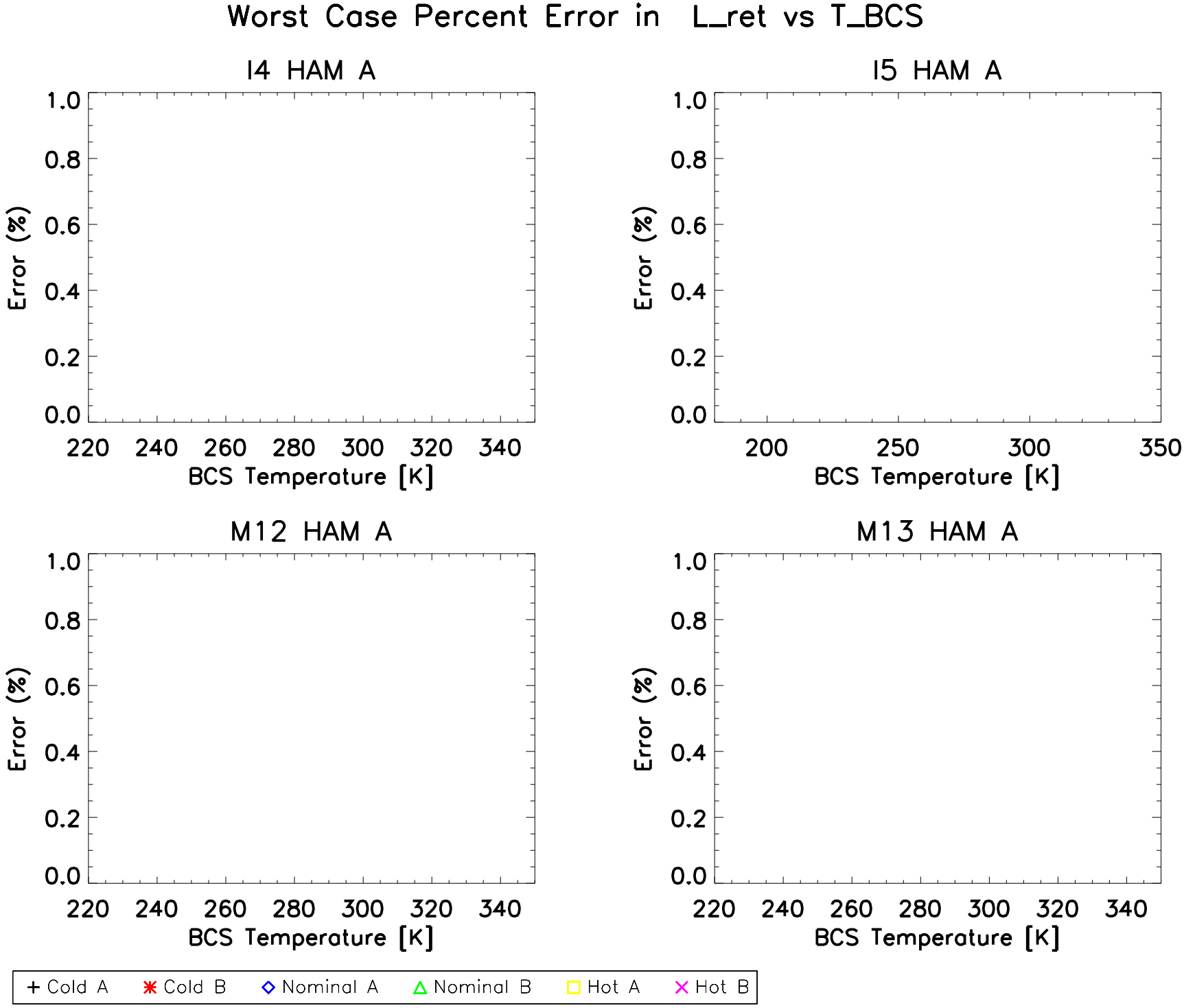
# NEdT vs T_BCS

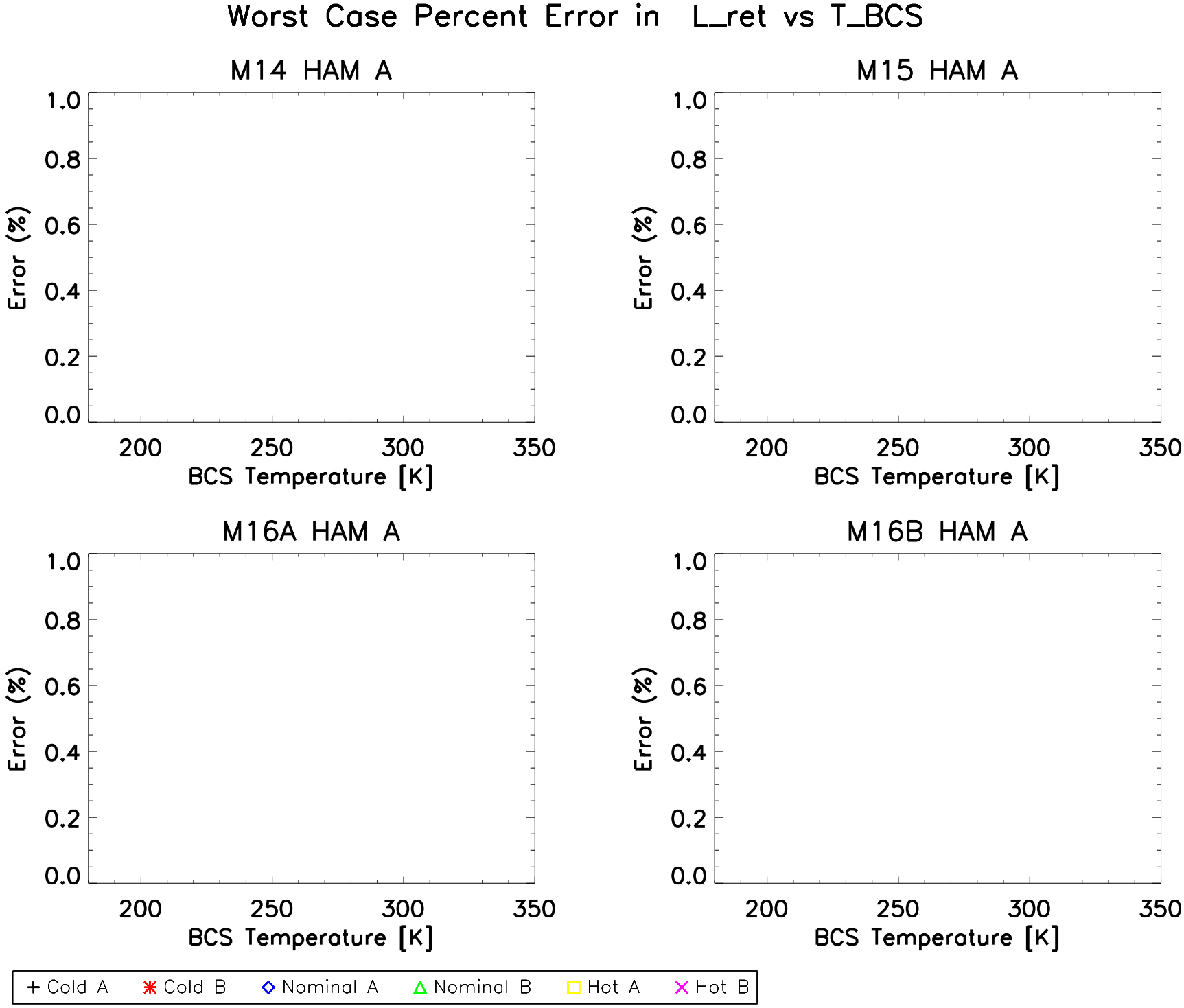

I4 SS1, HAM=A
I5 SS1, HAM=A
M12 SS1, HAM=A
M13 SS1, HAM=A
NEdT [K]
T_BCS [K]
Cold A
Cold B
Nominal A
Nominal B
Hot A
Hot B


NEdT vs T_BCS
M14 SS1, HAM=A
M15 SS1, HAM=A
M16A SS1, HAM=A
M16B SS1, HAM=A
NEdT [K]
T_BCS [K]
0.00
0.05
0.10
0.15
0.20
200
250
300
350
Cold A
Cold B
Nominal A
Nominal B
Hot A
Hot B


Baseline Percent Error in L_ret vs T_BCS
I4 HAM A
I5 HAM A
M12 HAM A
M13 HAM A
Error (%)
BCS Temperature [K]
1.0
0.8
0.6
0.4
0.2
0.0
220 240 260 280 300 320 340
200 250 300 350
Cold A
Cold B
Nominal A
Nominal B
Hot A
Hot B


Baseline Percent Error in L_ret vs T_BCS
M14 HAM A
M15 HAM A
M16A HAM A
M16B HAM A
Error (%)
BCS Temperature [K]
1.0
0.8
0.6
0.4
0.2
0.0
200
250
300
350
Cold A
Cold B
Nominal A
Nominal B
Hot A
Hot B


Worst Case Percent Error in L_ret vs T_BCS
I4 HAM A
I5 HAM A
M12 HAM A
M13 HAM A
Error (%)
BCS Temperature [K]
1.0
0.8
0.6
0.4
0.2
0.0
220
240
260
280
300
320
340
200
250
300
350
Cold A
Cold B
Nominal A
Nominal B
Hot A
Hot B


Worst Case Percent Error in L_ret vs T_BCS
M14 HAM A
M15 HAM A
M16A HAM A
M16B HAM A
Error (%)
1.0
0.8
0.6
0.4
0.2
0.0
200
250
300
350
BCS Temperature [K]
Cold A
Cold B
Nominal A
Nominal B
Hot A
Hot B