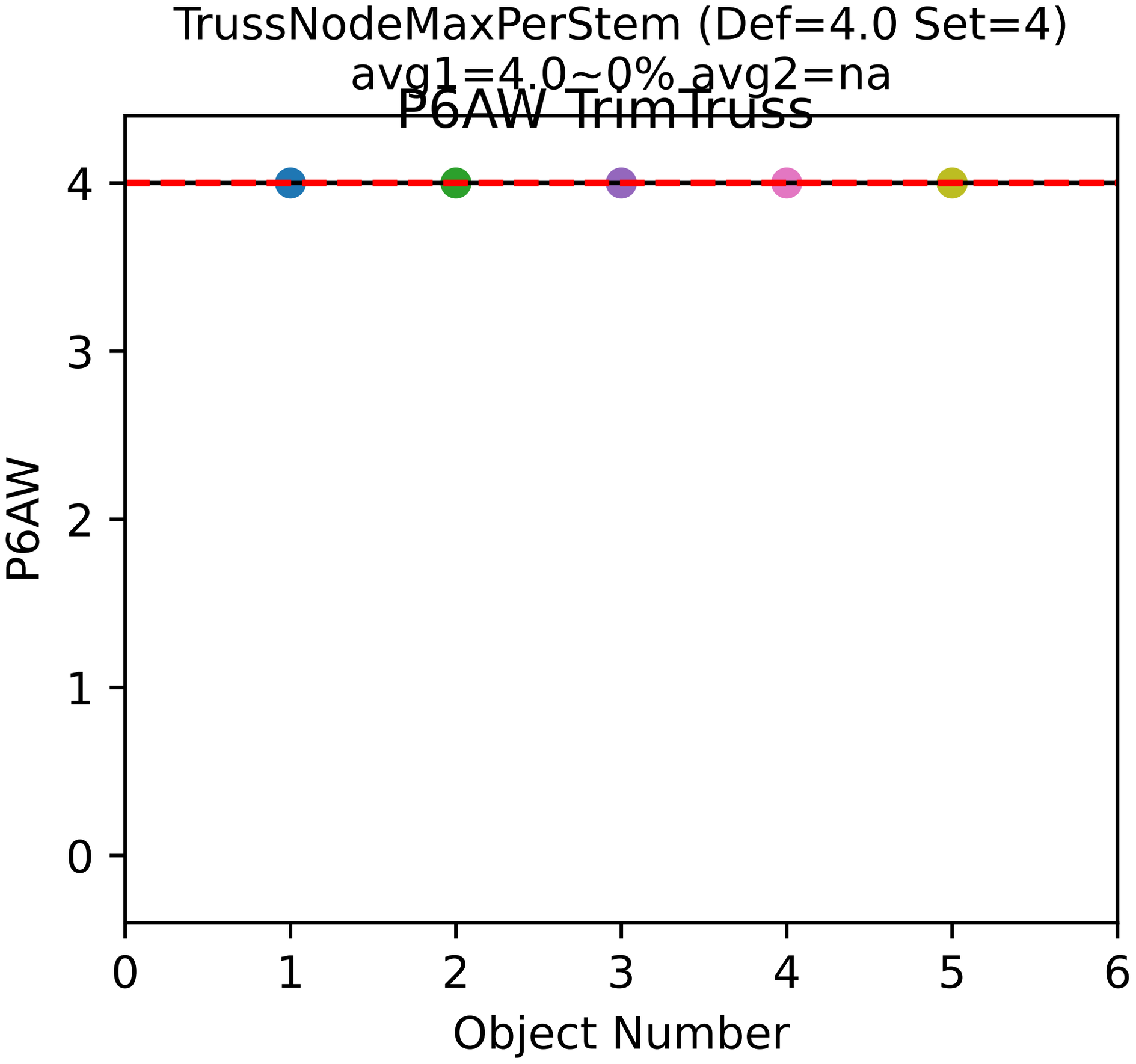
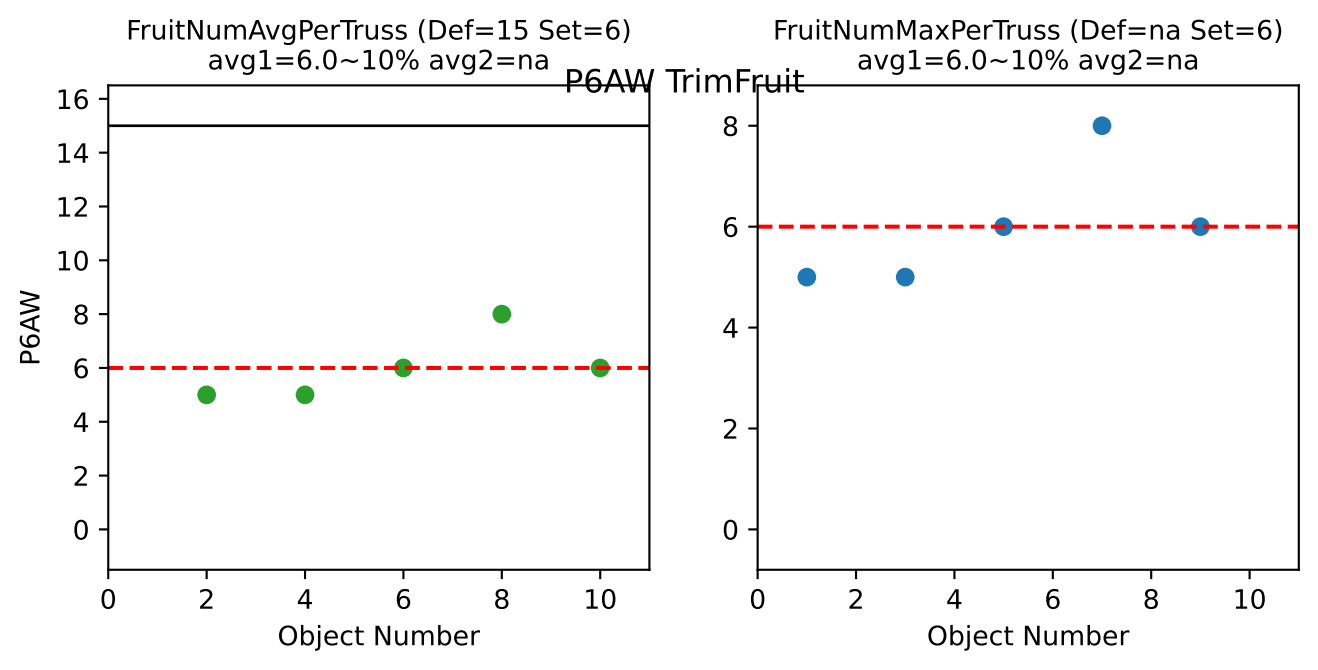
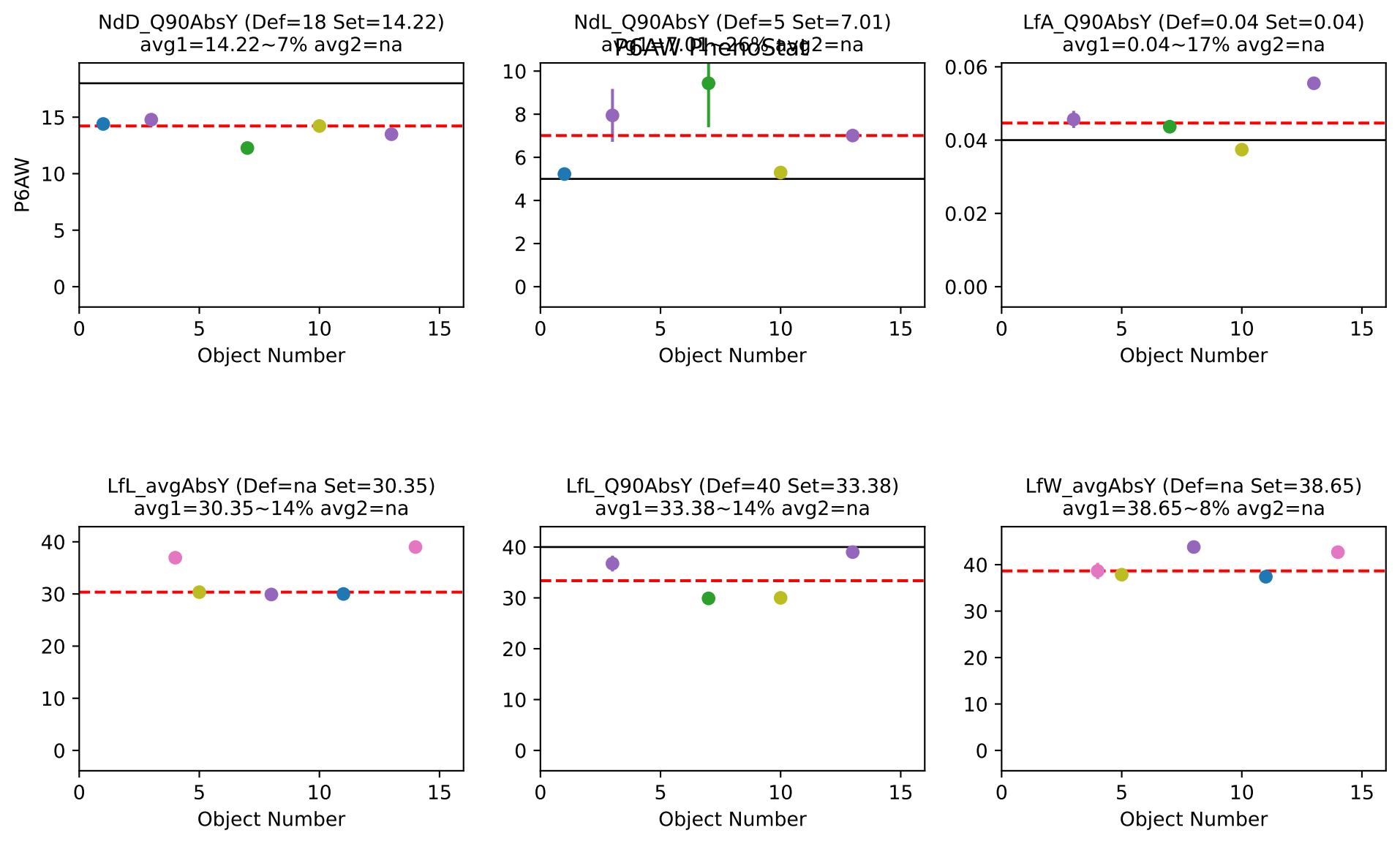
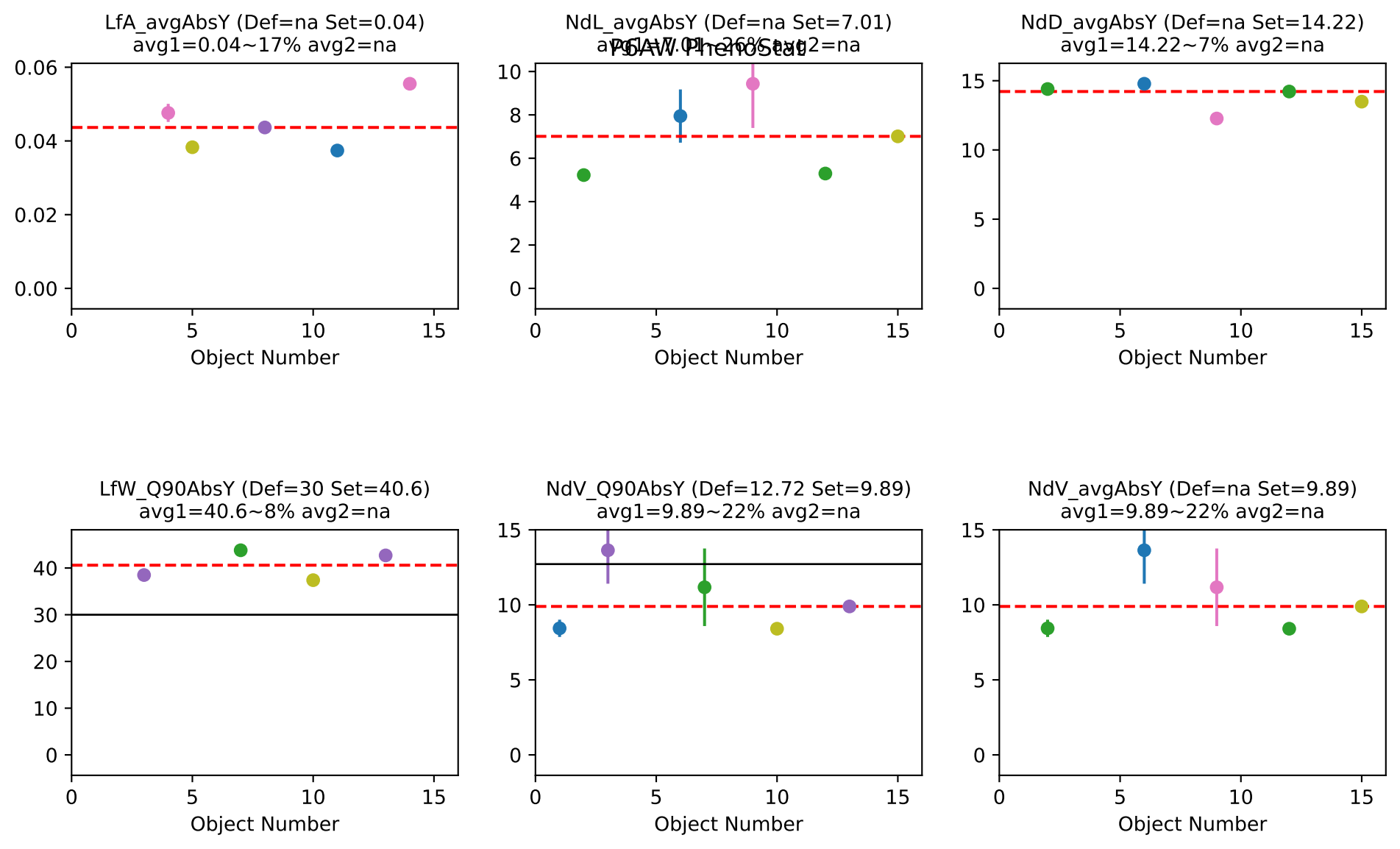
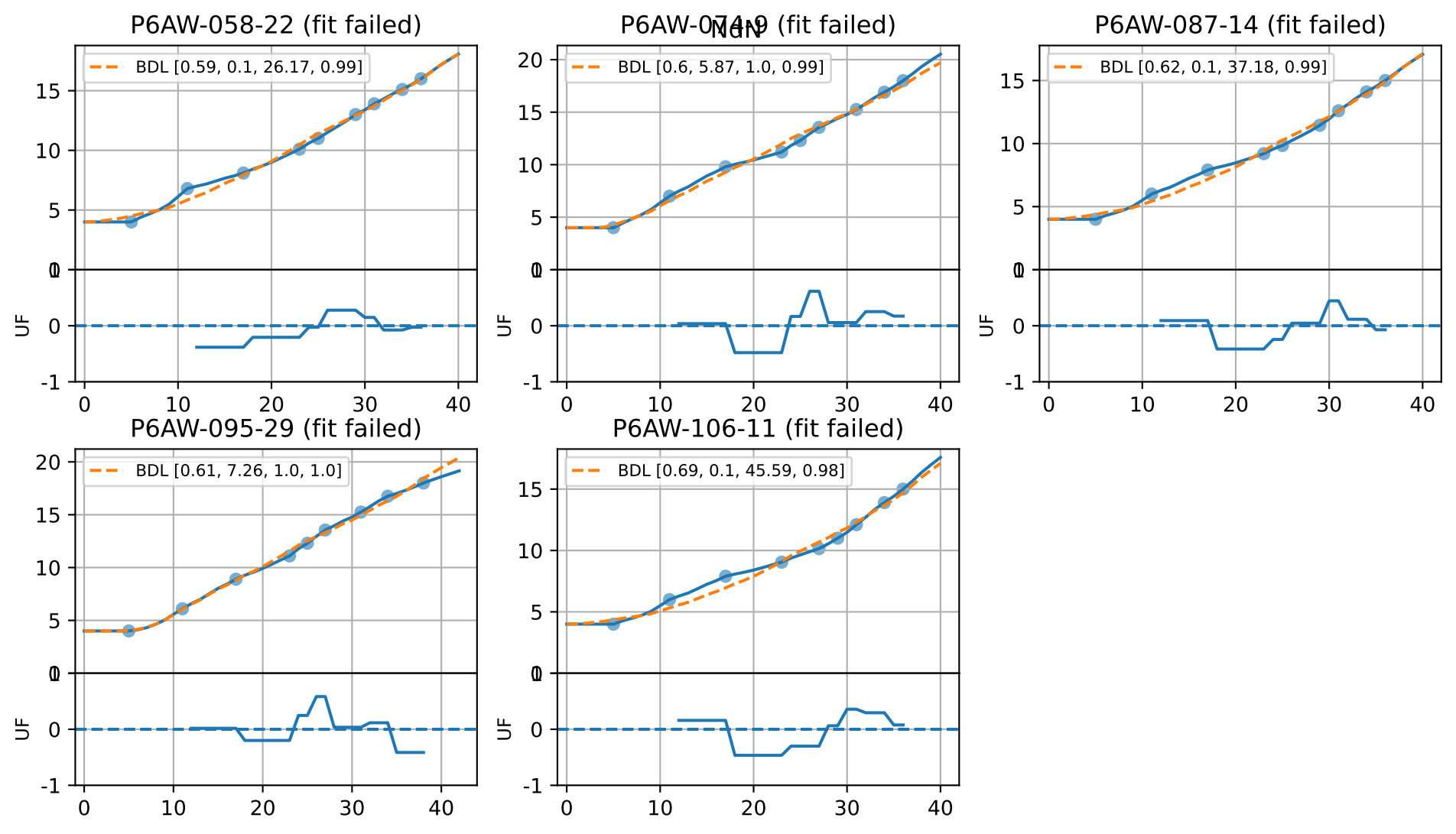
Phenotype Data Analysis Plots
PhenoData day range = 5 - 38
Analysis cutoff day = 38
NC11 P6
2025-05-14 (Day 39)

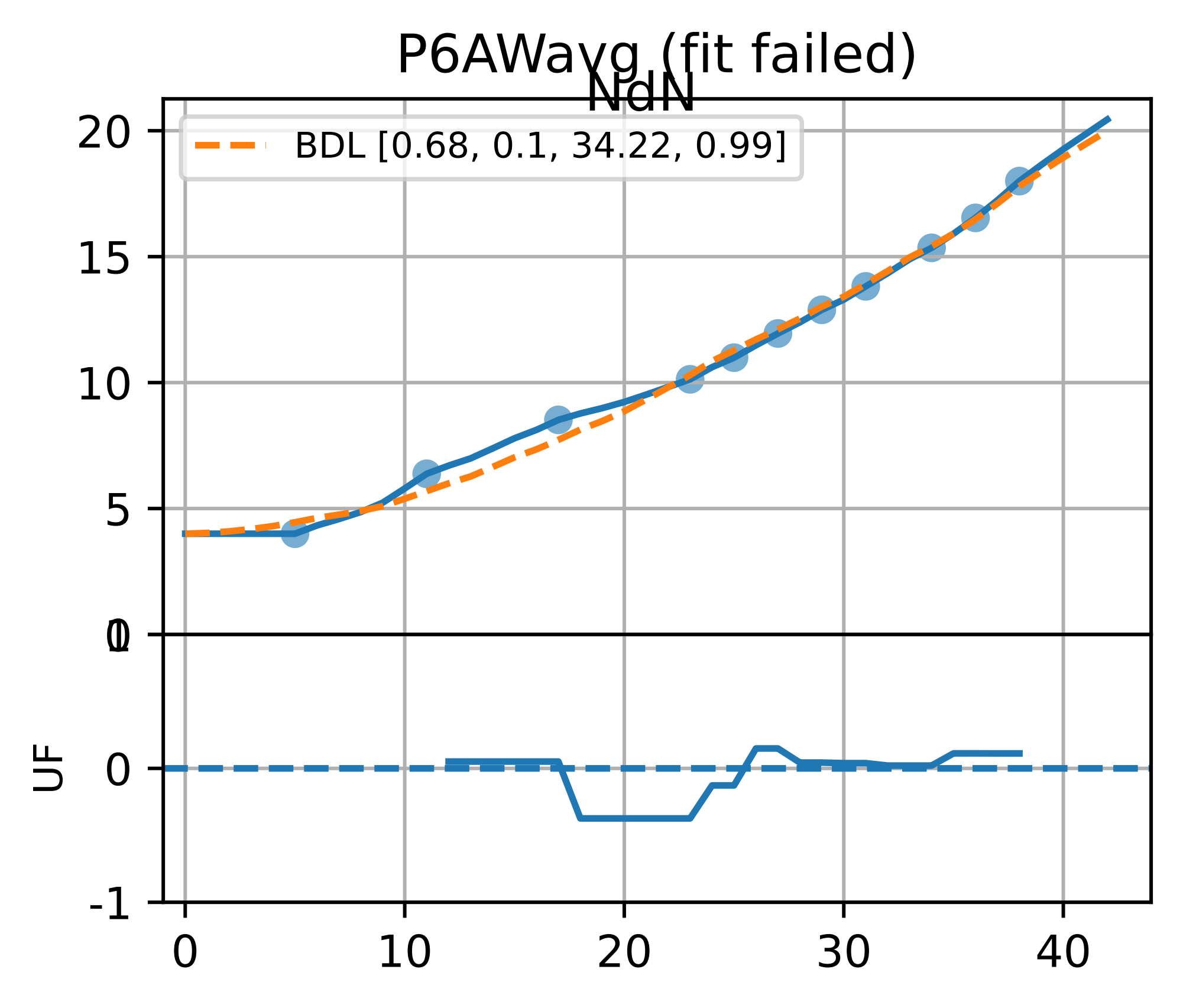

TrussNodeMaxPerStem (Def=4.0 Set=4)
avg1=4.0~0% avg2=na
P6AW TrimTruss
P6AW
Object Number
0
1
2
3
4
5
6

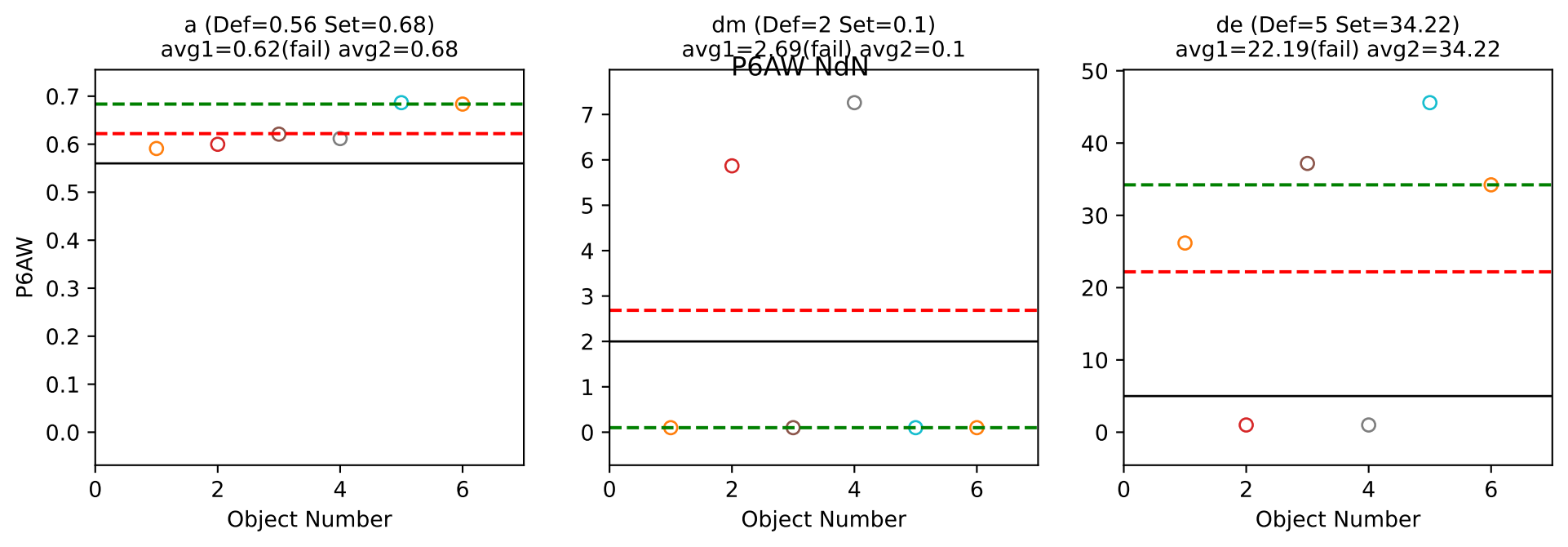

P6AW TrimFruit
FruitNumAvgPerTruss (Def=15 Set=6)
avg1=6.0~10% avg2=na
FruitNumMaxPerTruss (Def=na Set=6)
avg1=6.0~10% avg2=na
P6AW
Object Number
Object Number

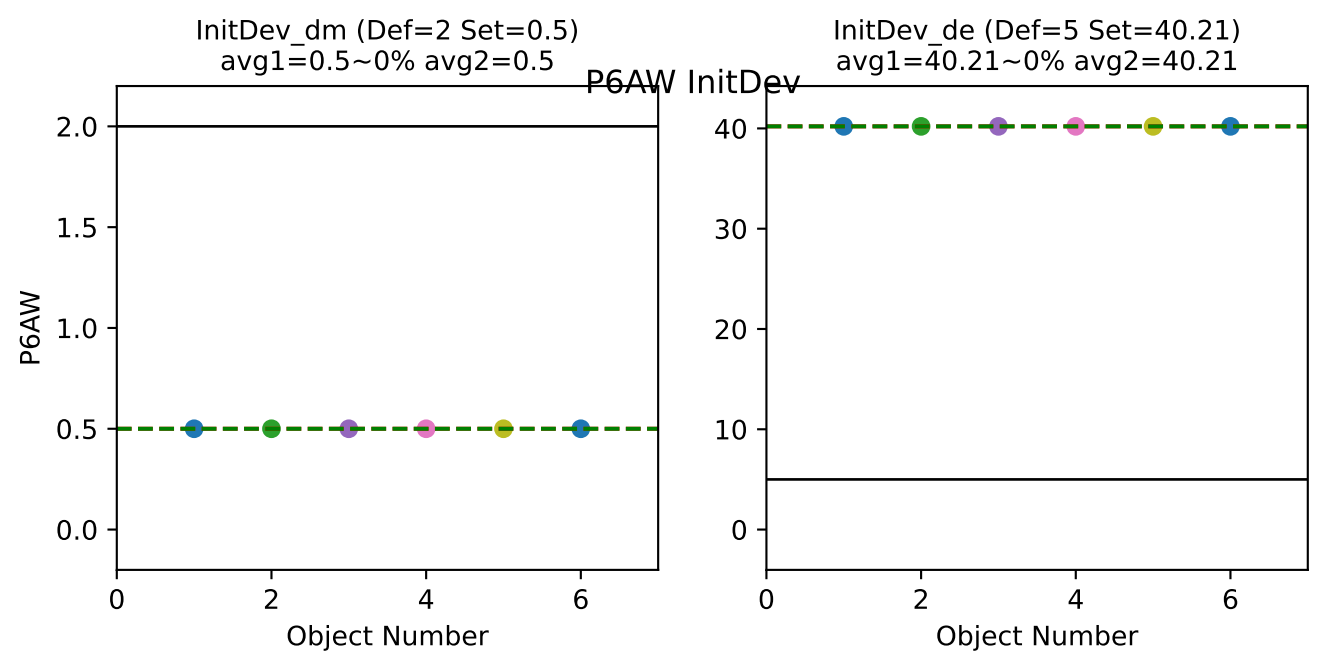

NdD_Q90AbsY (Def=18 Set=14.22)
avg1=14.22~7% avg2=na
NdL_Q90AbsY (Def=5 Set=7.01)
avg1=7.01~26% avg2=na
LfA_Q90AbsY (Def=0.04 Set=0.04)
avg1=0.04~17% avg2=na
LfL_avgAbsY (Def=na Set=30.35)
avg1=30.35~14% avg2=na
LfL_Q90AbsY (Def=40 Set=33.38)
avg1=33.38~14% avg2=na
LfW_avgAbsY (Def=na Set=38.65)
avg1=38.65~8% avg2=na
P6AW PhenoStat
P6AW
Object Number

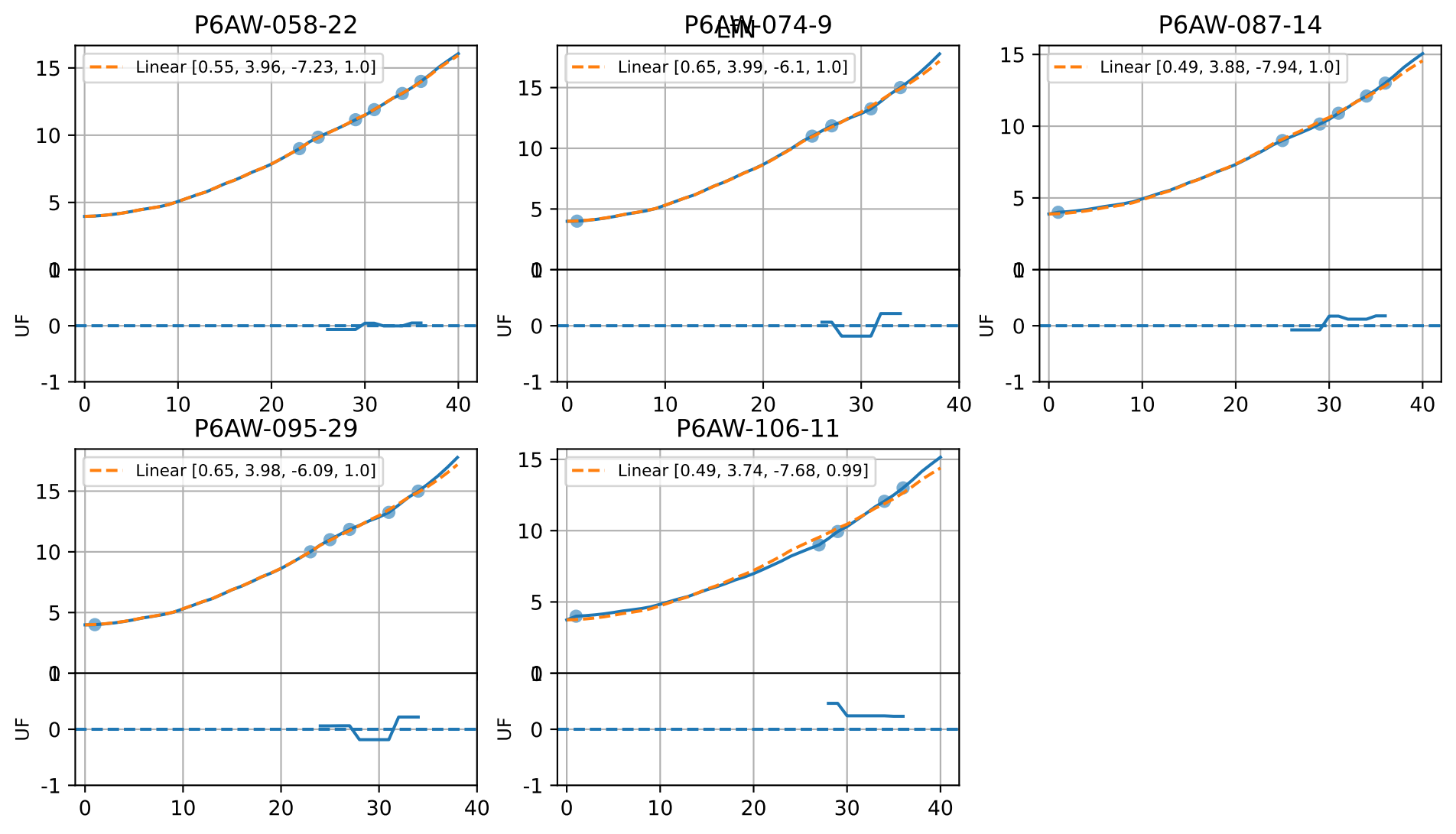

LfA_avgAbsY (Def=na Set=0.04)
avg1=0.04~17% avg2=na
NdL_avgAbsY (Def=na Set=7.01)
avg1=7.01~26% avg2=na
PsAW.PhenoStat
NdD_avgAbsY (Def=na Set=14.22)
avg1=14.22~7% avg2=na
LfW_Q90AbsY (Def=30 Set=40.6)
avg1=40.6~8% avg2=na
NdV_Q90AbsY (Def=12.72 Set=9.89)
avg1=9.89~22% avg2=na
NdV_avgAbsY (Def=na Set=9.89)
avg1=9.89~22% avg2=na
Object Number

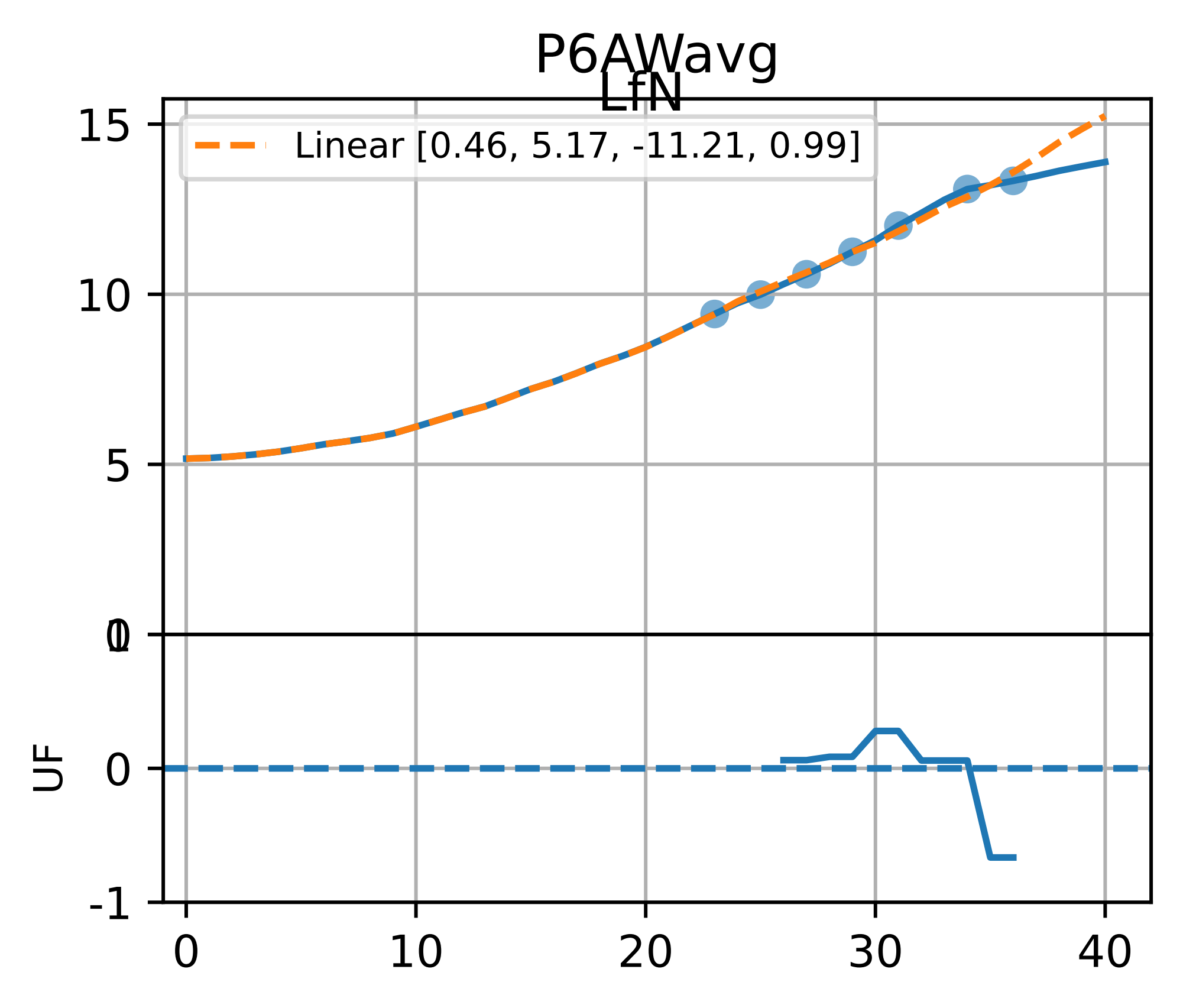

P6AW-058-22 (fit failed)
BDL [0.59, 0.1, 26.17, 0.99]
P6AW-074-9 (fit failed)
BDL [0.6, 5.87, 1.0, 0.99]
P6AW-087-14 (fit failed)
BDL [0.62, 0.1, 37.18, 0.99]
P6AW-095-29 (fit failed)
BDL [0.61, 7.26, 1.0, 1.0]
P6AW-106-11 (fit failed)
BDL [0.69, 0.1, 45.59, 0.98]
UF

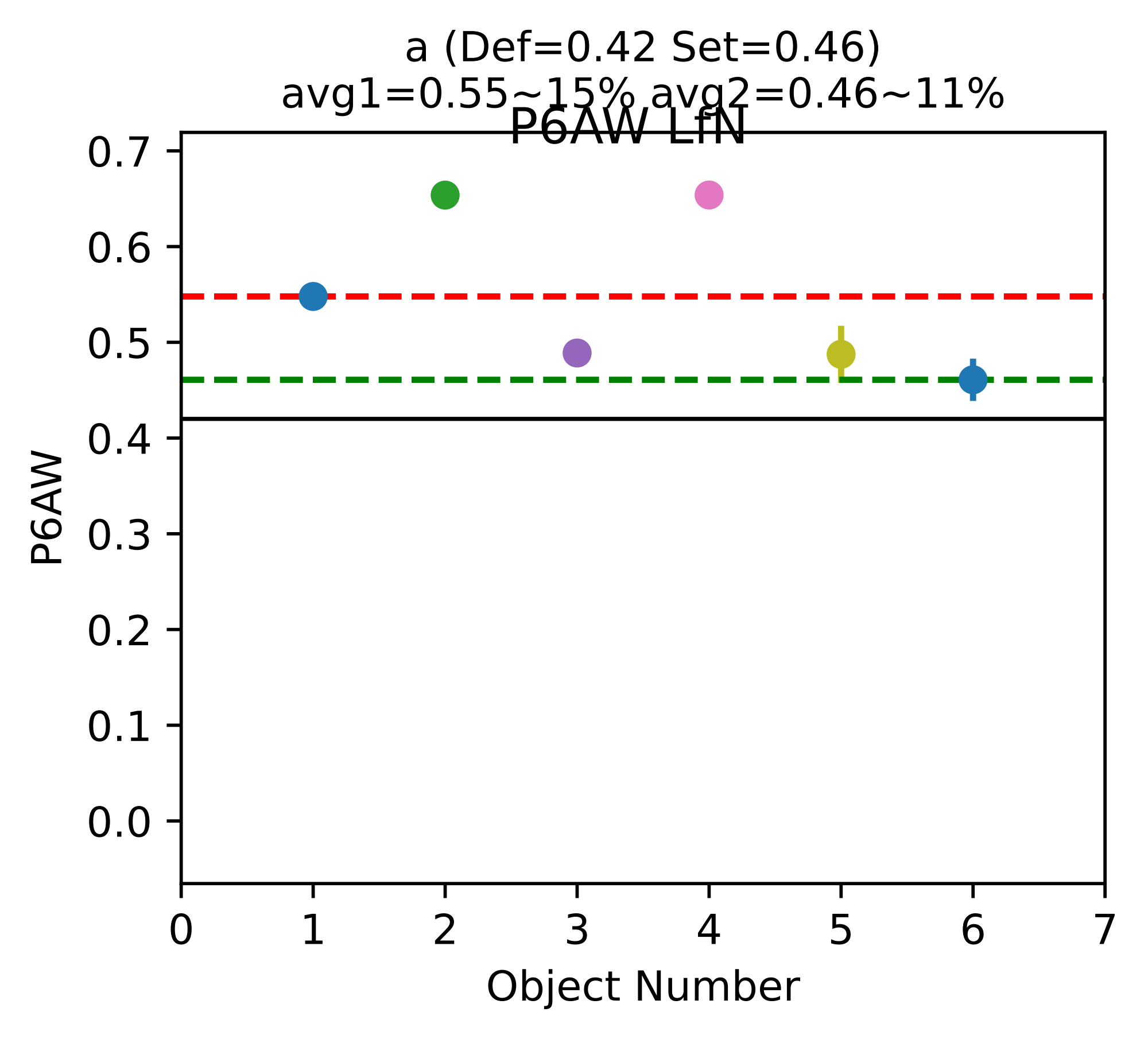

P6AWavg (fit failed)
NdN
BDL [0.68, 0.1, 34.22, 0.99]
20
15
10
5
0
0
-1
UF
0
10
20
30
40

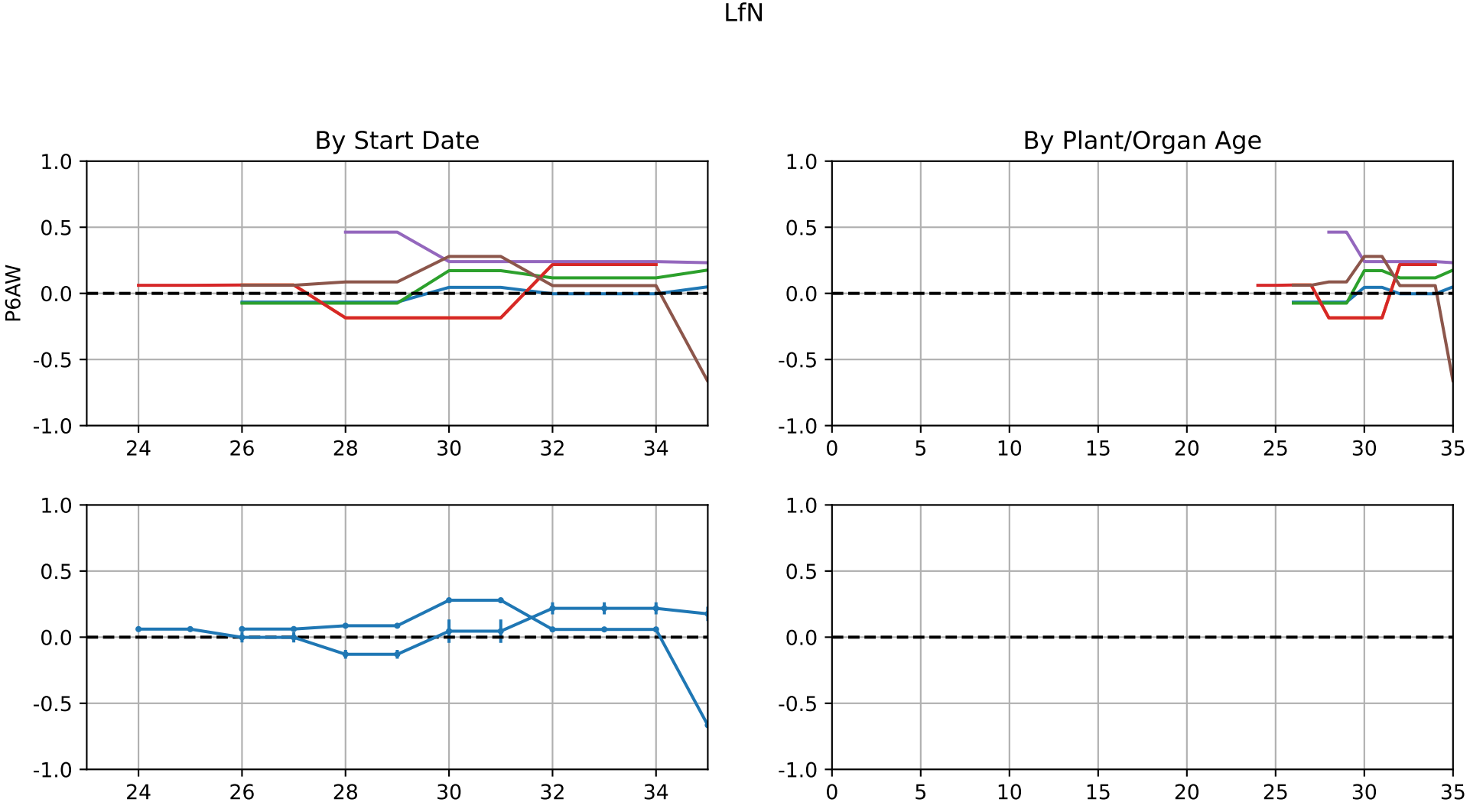

a (Def=0.56 Set=0.68)
avg1=0.62(fail) avg2=0.68
P6AW
Object Number
dm (Def=2 Set=0.1)
avg1=2.69(fail) avg2=0.1
P6AW NdN
Object Number
de (Def=5 Set=34.22)
avg1=22.19(fail) avg2=34.22
Object Number

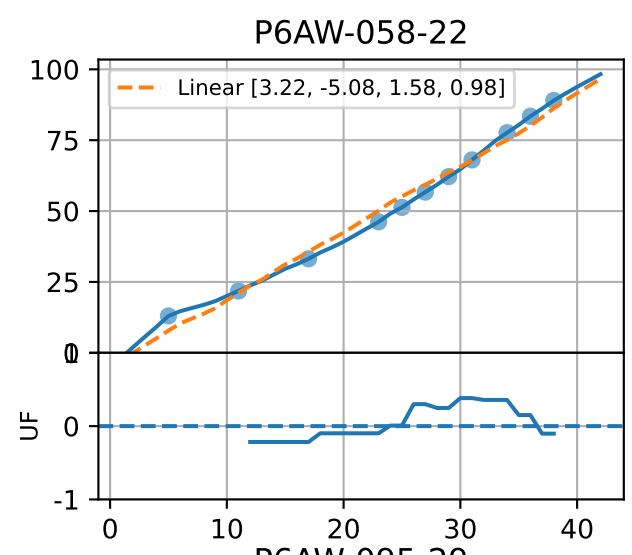

P6AW InitDev
InitDev_dm (Def=2 Set=0.5)
avg1=0.5~0% avg2=0.5
InitDev_de (Def=5 Set=40.21)
avg1=40.21~0% avg2=40.21
P6AW
Object Number
Object Number

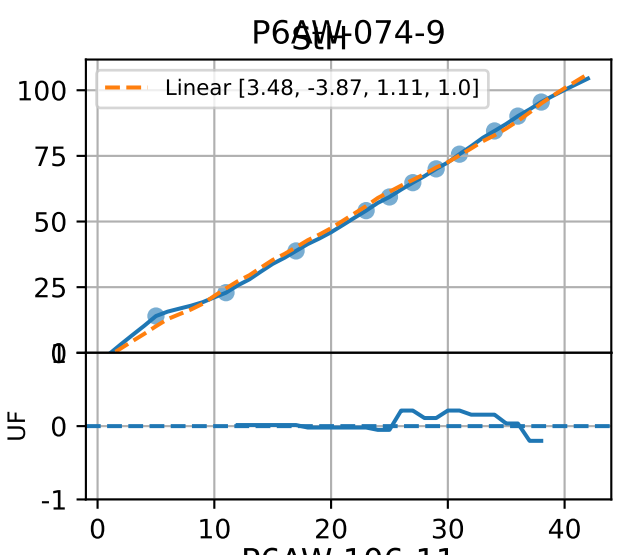

P6AW-058-22
Linear [0.55, 3.96, -7.23, 1.0]
P6AW-074-9
Linear [0.65, 3.99, -6.1, 1.0]
P6AW-087-14
Linear [0.49, 3.88, -7.94, 1.0]
P6AW-095-29
Linear [0.65, 3.98, -6.09, 1.0]
P6AW-106-11
Linear [0.49, 3.74, -7.68, 0.99]
LPM
UF

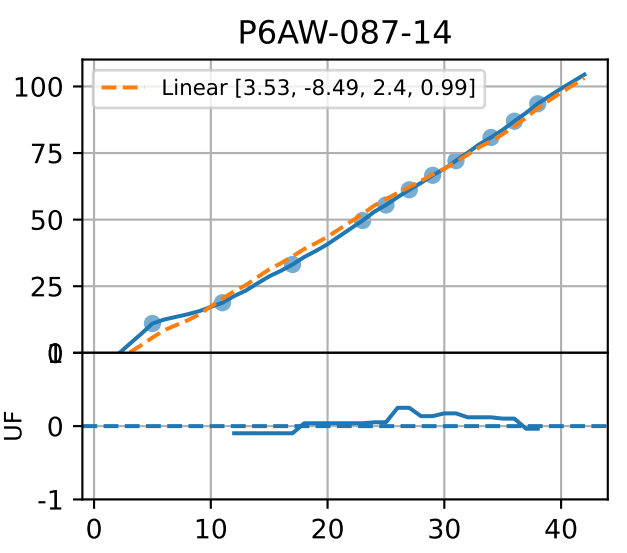

P6AWavg
LfN
Linear [0.46, 5.17, -11.21, 0.99]
15
10
5
0
-1
UF
0
10
20
30
40

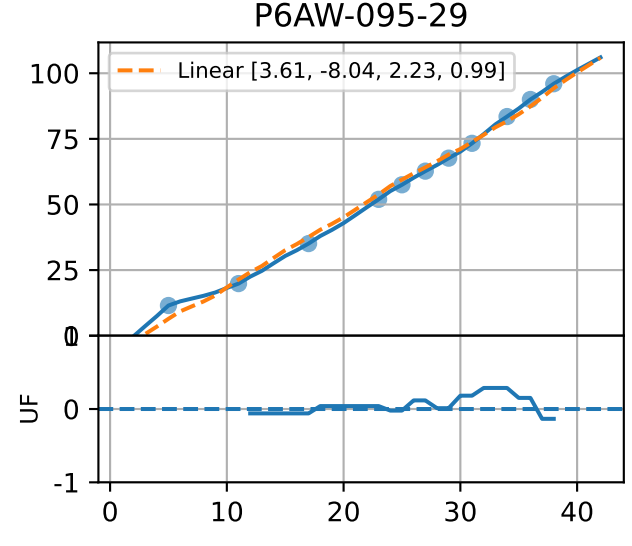

a (Def=0.42 Set=0.46)
avg1=0.55~15% avg2=0.46~11%
P6AW LfN
P6AW
Object Number
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0
1
2
3
4
5
6
7

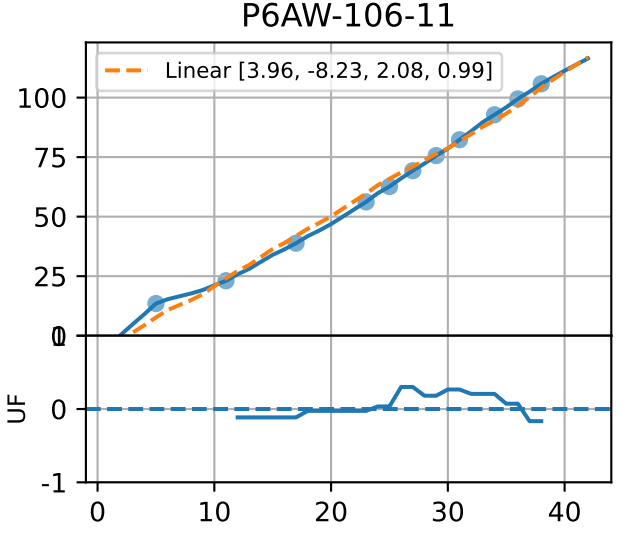

LfN
By Start Date
By Plant/Organ Age
P6AW
1.0
0.5
0.0
-0.5
-1.0
24
26
28
30
32
34
0
5
10
15
20
25
30
35

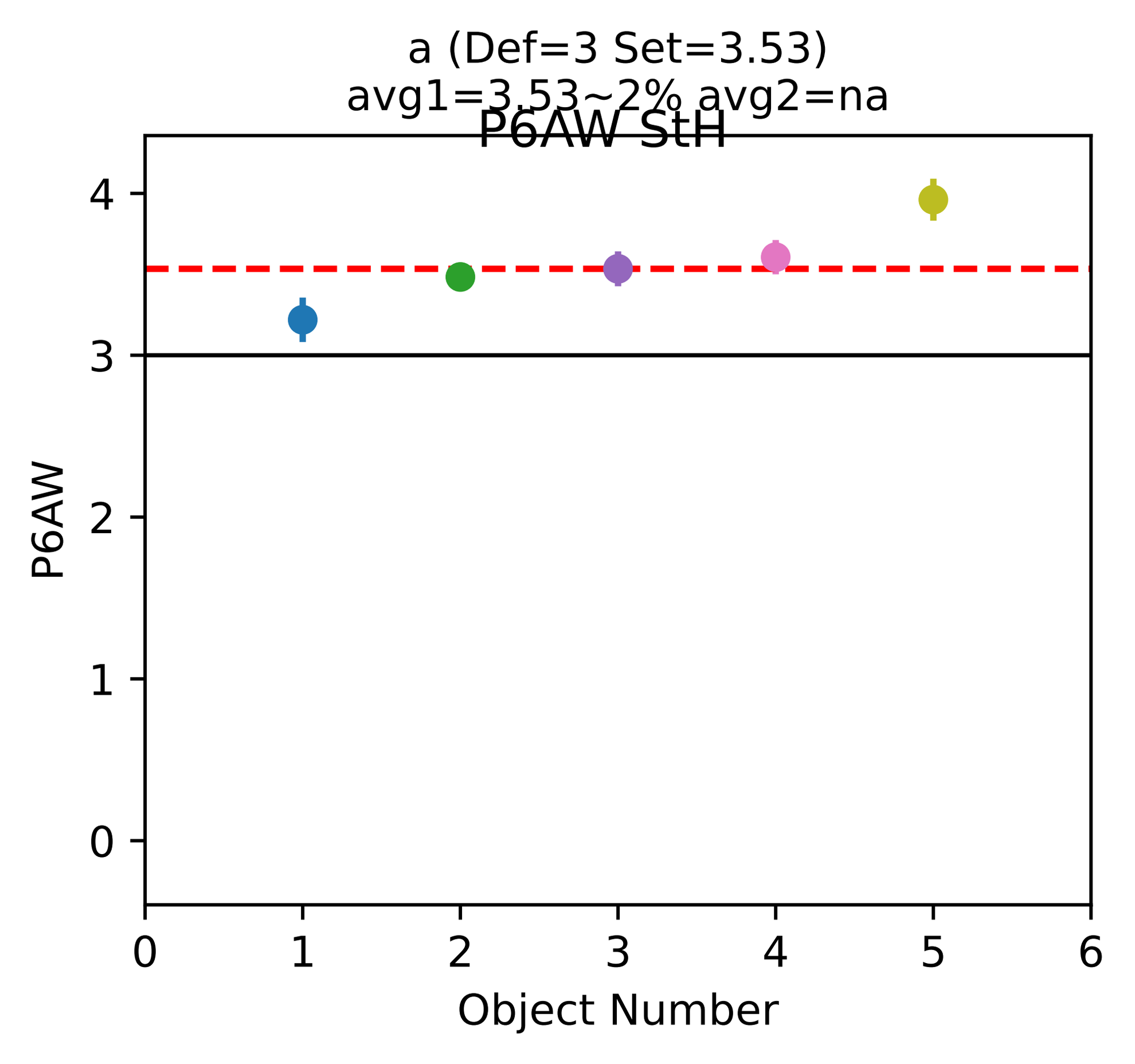

P6AW-058-22
Linear [3.22, -5.08, 1.58, 0.98]
UF

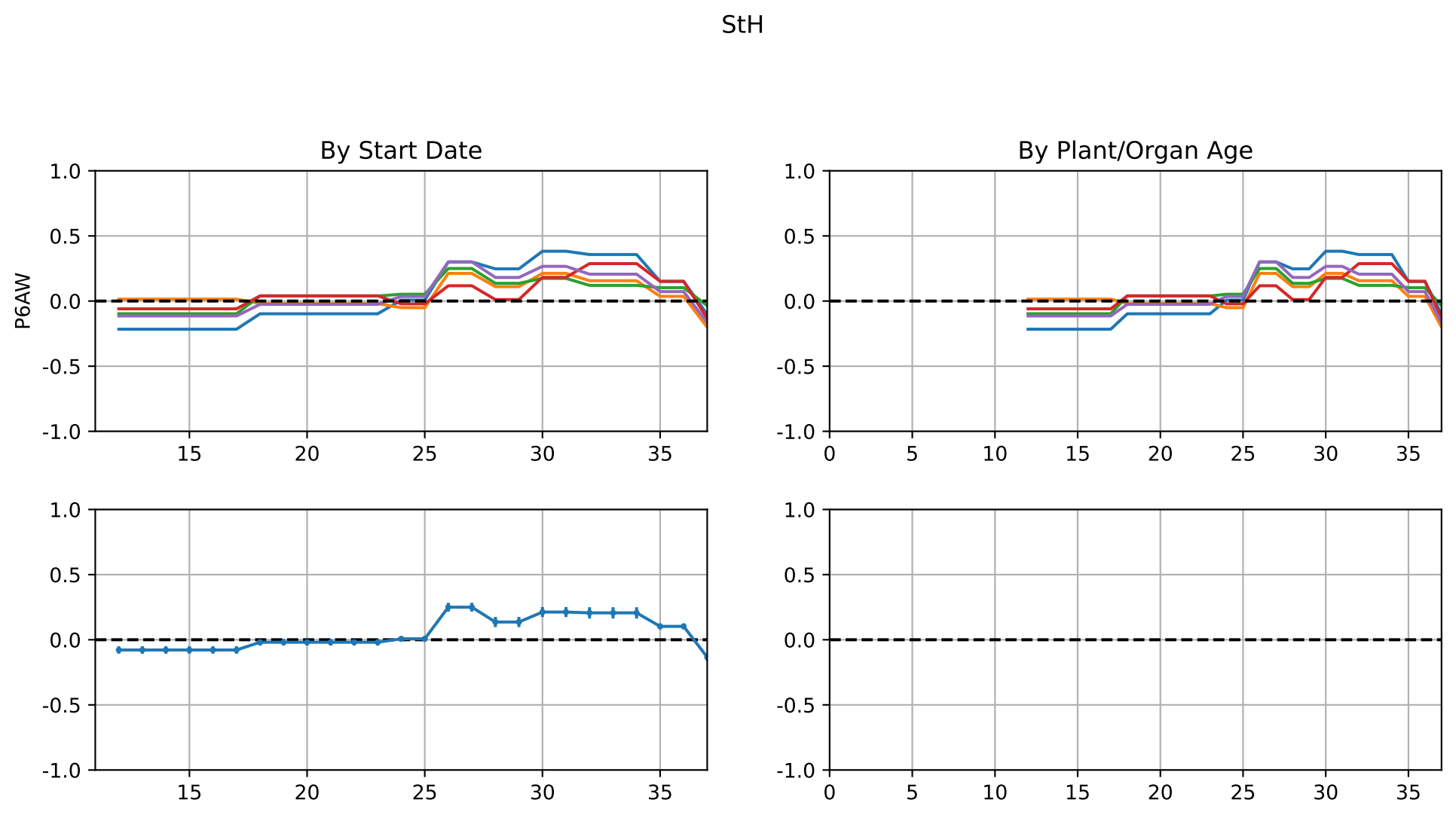

P6AW-074-9
Linear [3.48, -3.87, 1.11, 1.0]
UF

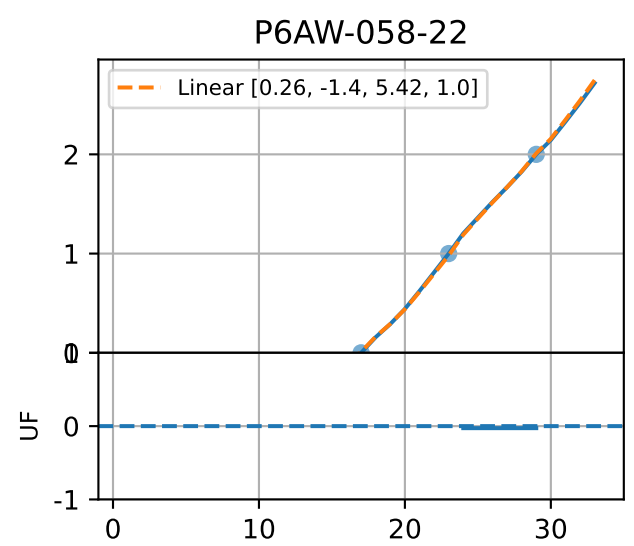

P6AW-087-14
Linear [3.53, -8.49, 2.4, 0.99]
UF

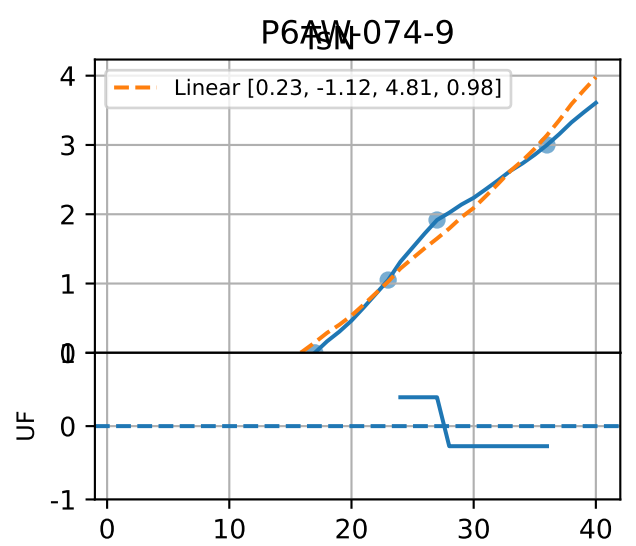

P6AW-095-29
Linear [3.61, -8.04, 2.23, 0.99]
UF

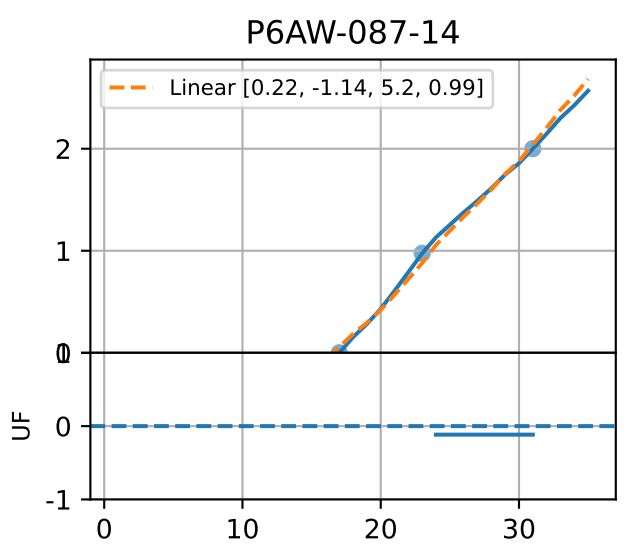

P6AW-106-11
Linear [3.96, -8.23, 2.08, 0.99]
UF

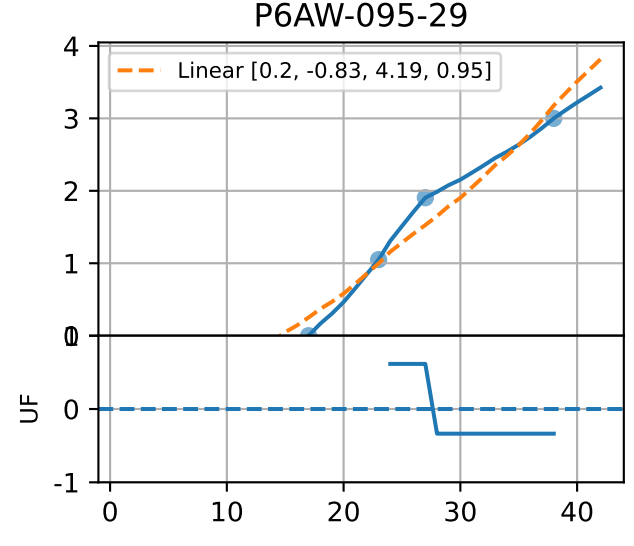

a (Def=3 Set=3.53)
avg1=3.53~2% avg2=na
P6AW StH
P6AW
Object Number
0
1
2
3
4
5
6

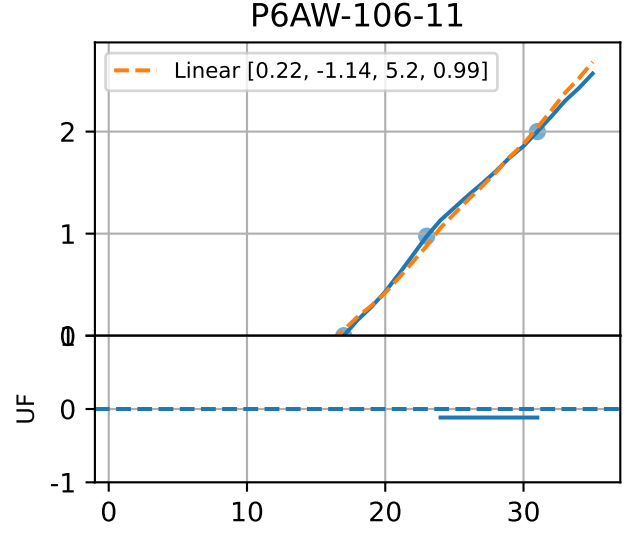

StH
By Start Date
By Plant/Organ Age
P6AW
1.0
0.5
0.0
-0.5
-1.0
15
20
25
30
35
0
5
10

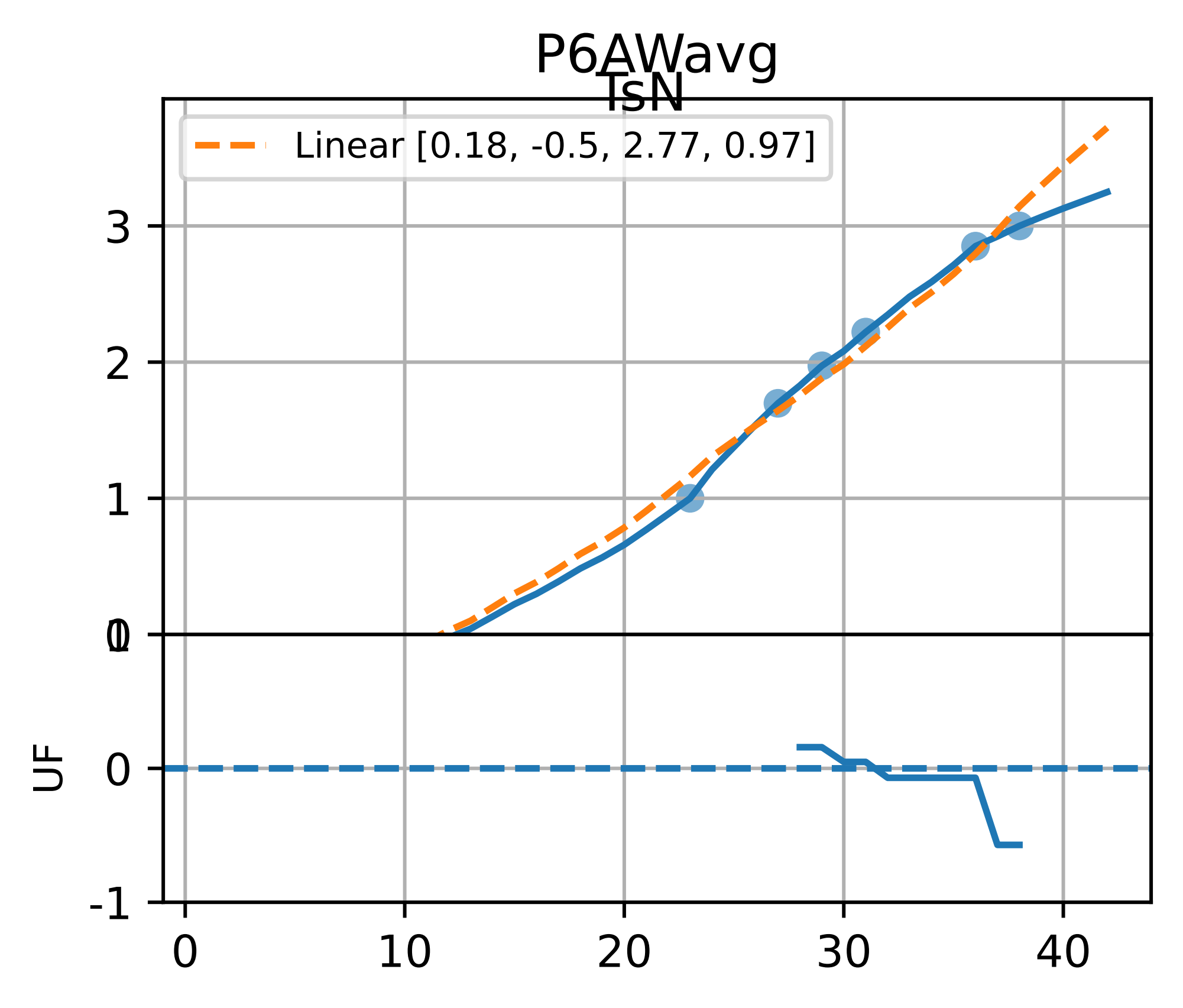

P6AW-058-22
Linear [0.26, -1.4, 5.42, 1.0]
UF
TSN

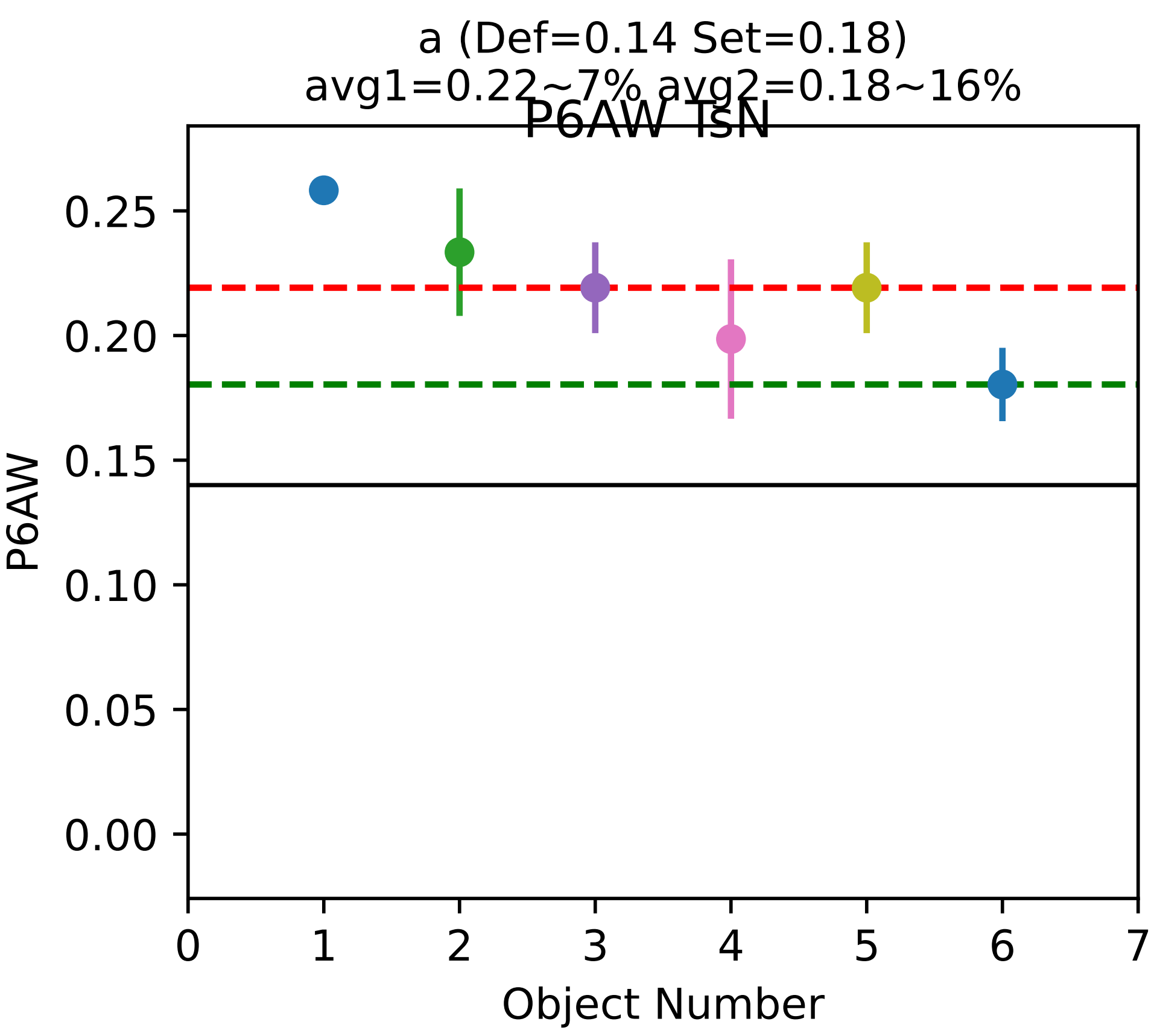

P6AW-074-9
Linear [0.23, -1.12, 4.81, 0.98]
UF
TSN

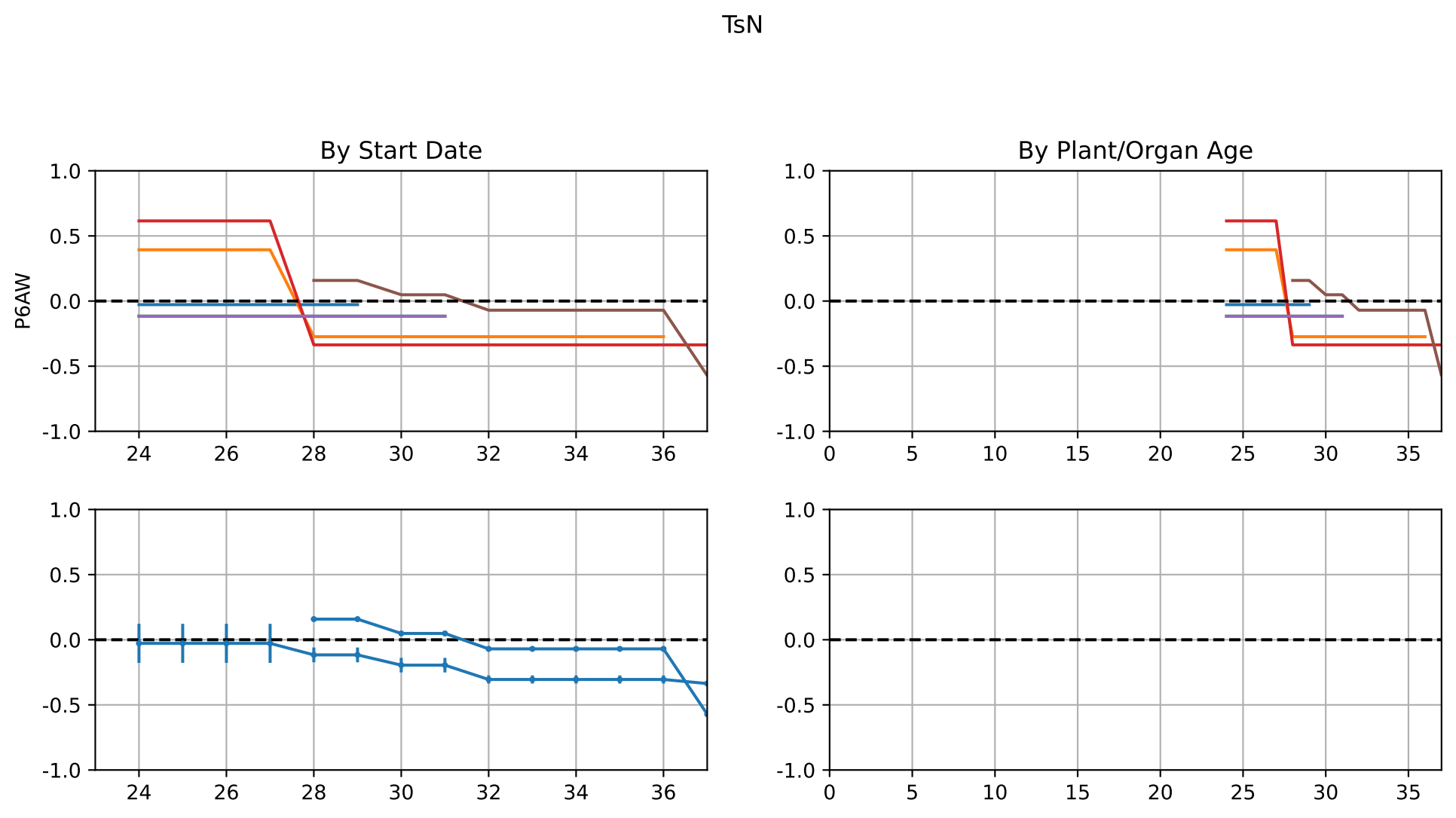

P6AW-087-14
Linear [0.22, -1.14, 5.2, 0.99]
UF
TSN

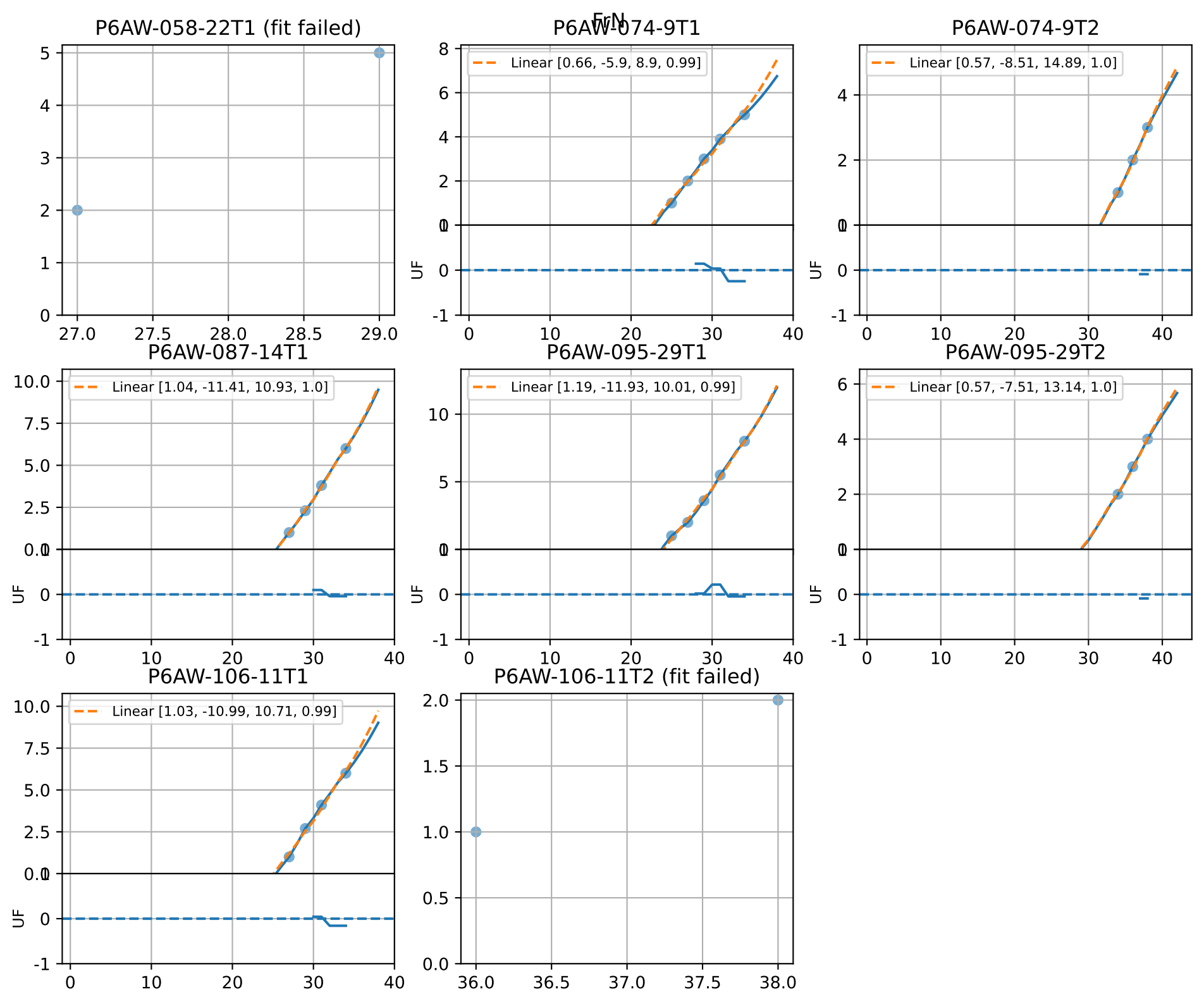

P6AW-095-29
Linear [0.2, -0.83, 4.19, 0.95]
UF
TSN

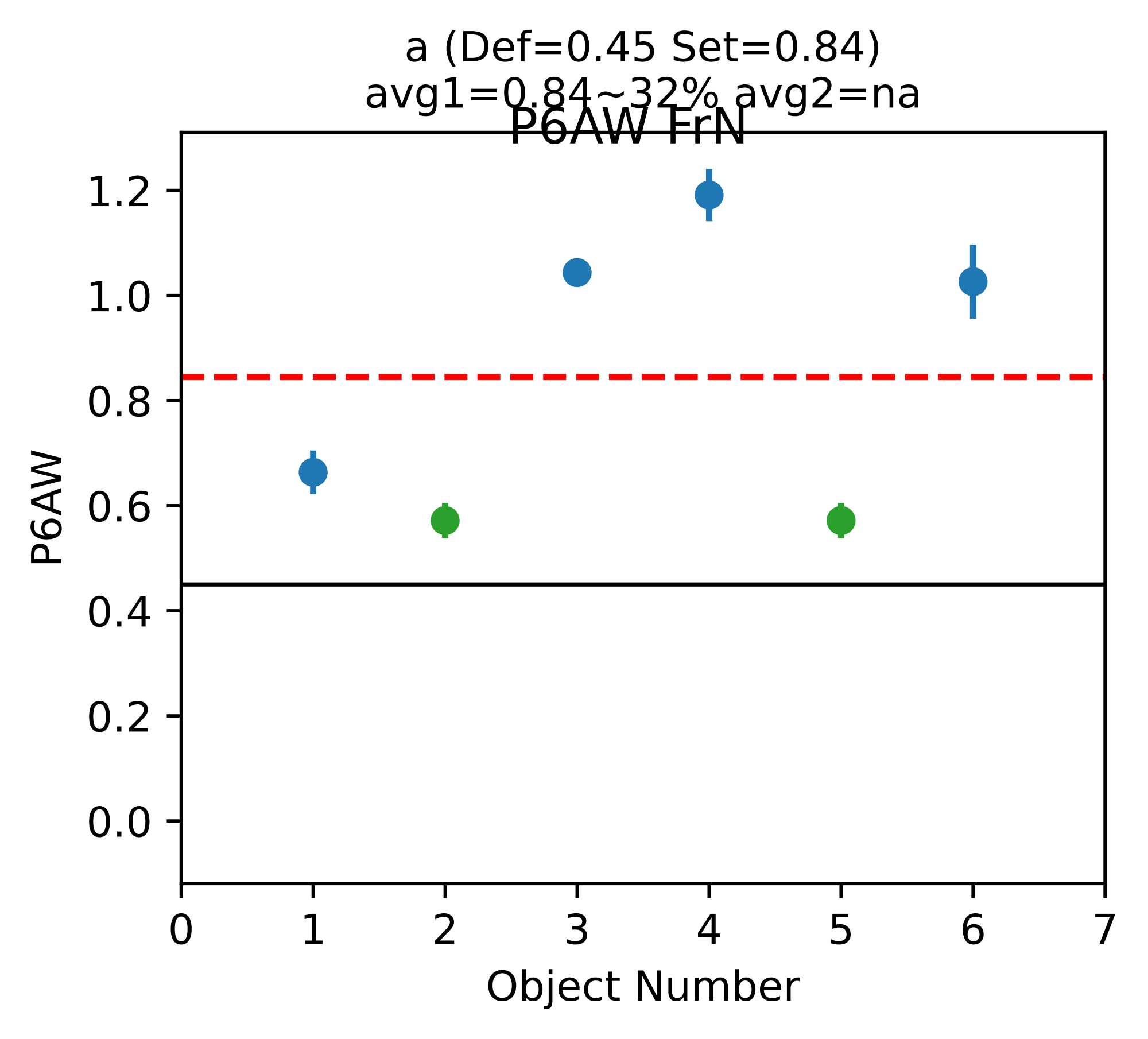

P6AW-106-11
Linear [0.22, -1.14, 5.2, 0.99]
UF
TSN

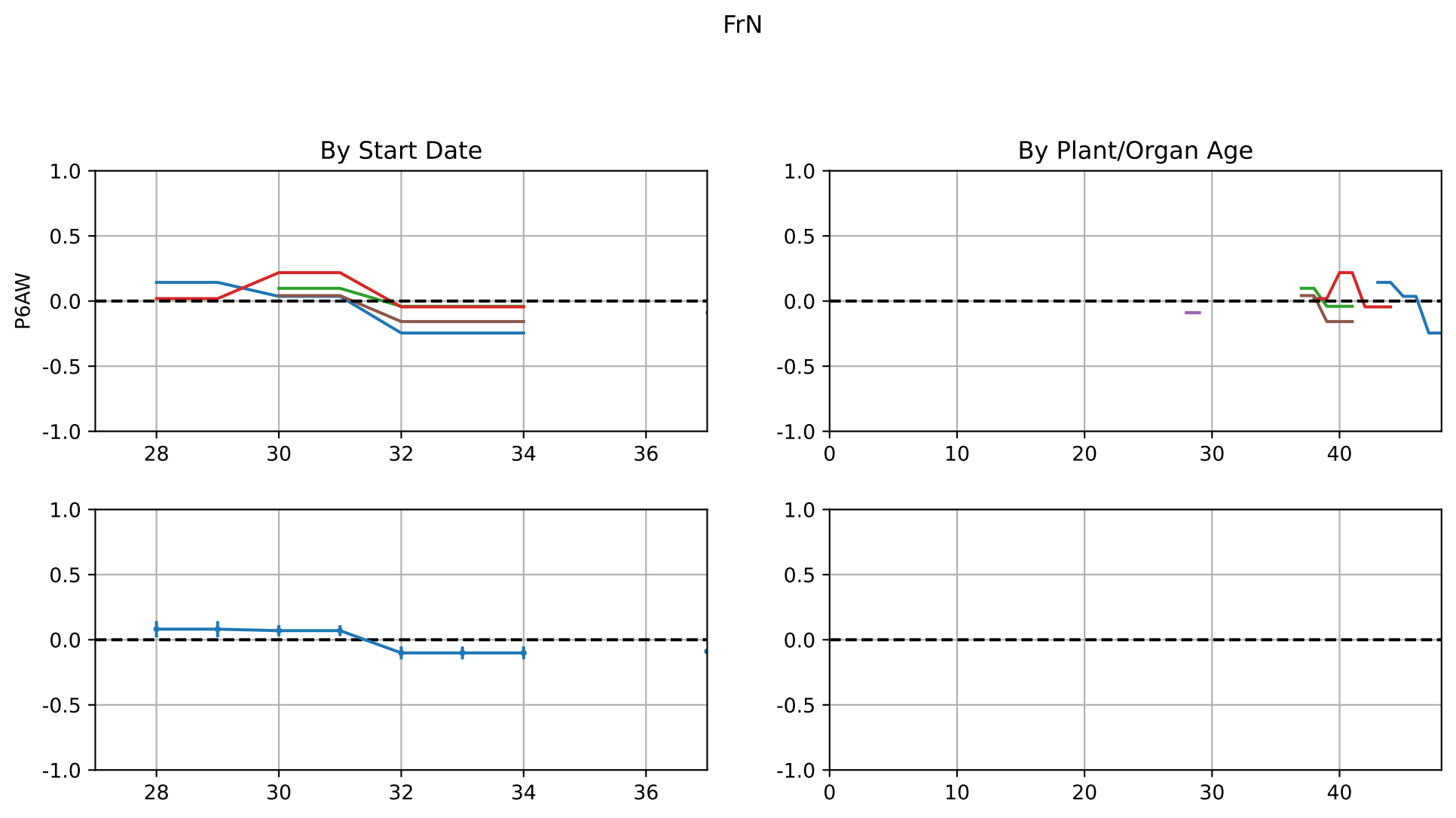

P6AWavg
TsN
Linear [0.18, -0.5, 2.77, 0.97]
3
2
1
0
0
UF
0
-1
0
10
20
30
40

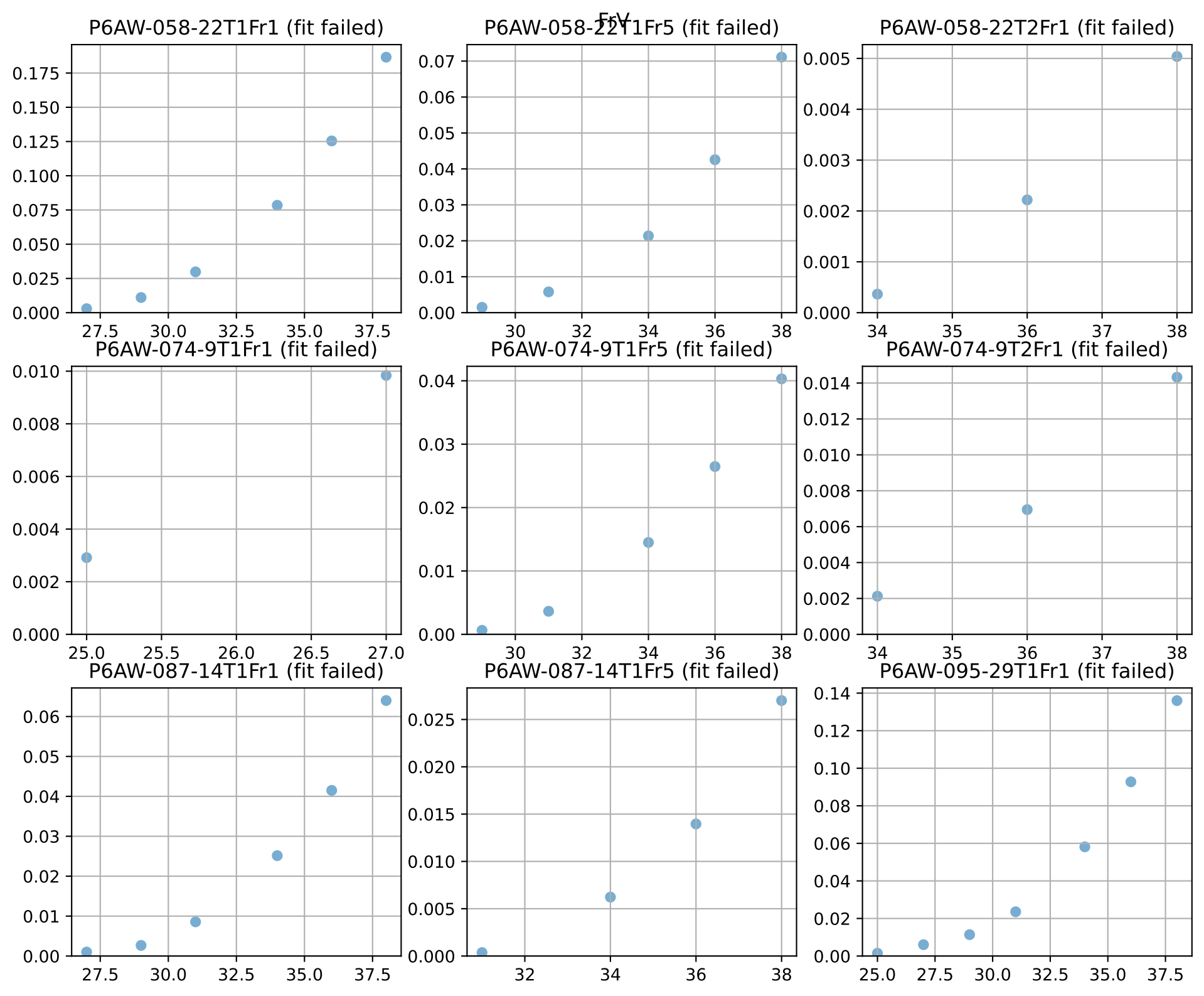

a (Def=0.14 Set=0.18)
avg1=0.22~7% avg2=0.18~16%
P6AW TSN
P6AW
0.25
0.20
0.15
0.10
0.05
0.00
0
1
2
3
4
5
6
7
Object Number

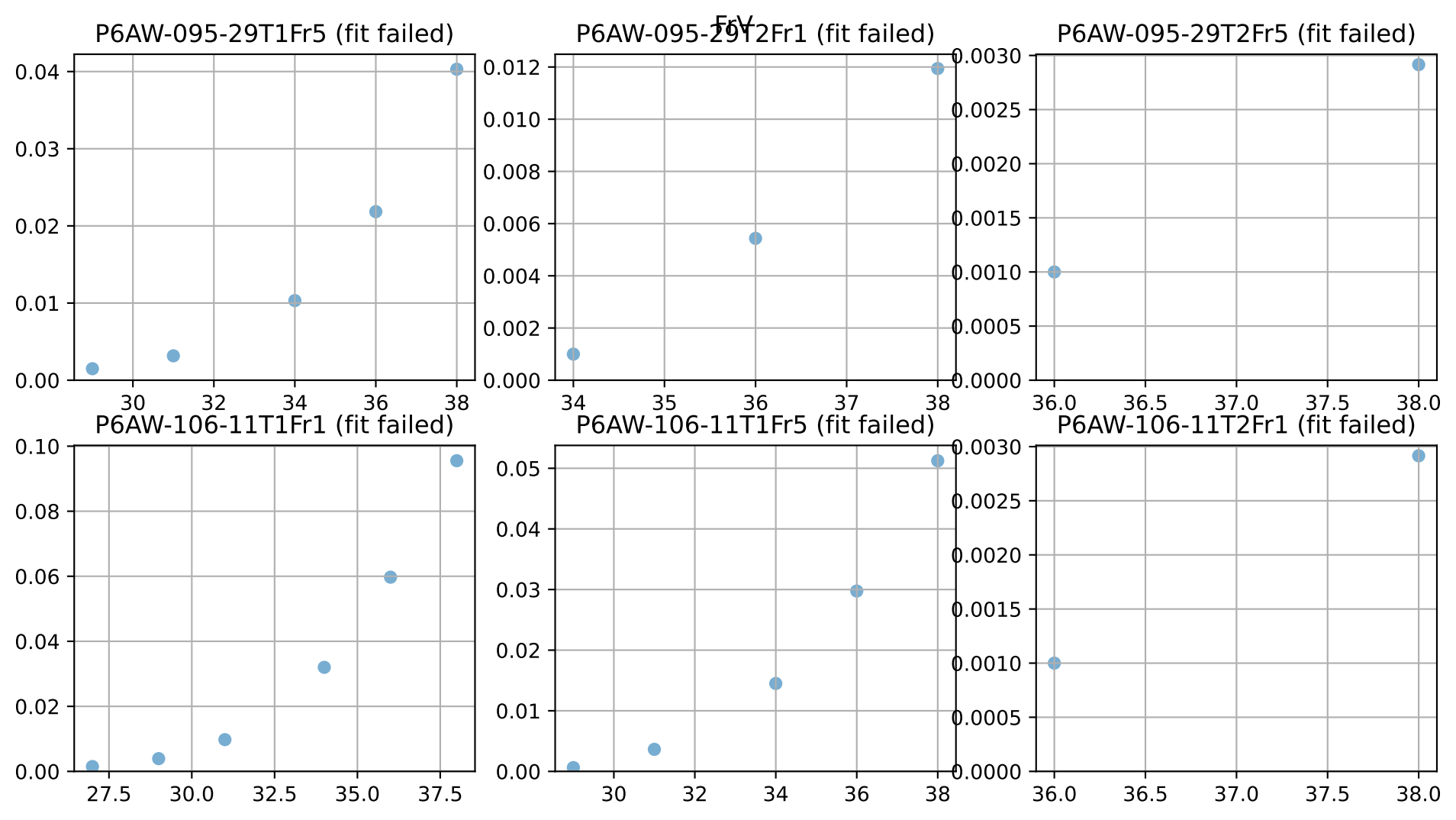

TsN
By Start Date
By Plant/Organ Age
P6AW
1.0
0.5
0.0
-0.5
-1.0
24
26
28
30
32
34
36
0
5
10
15
20
25
30
35

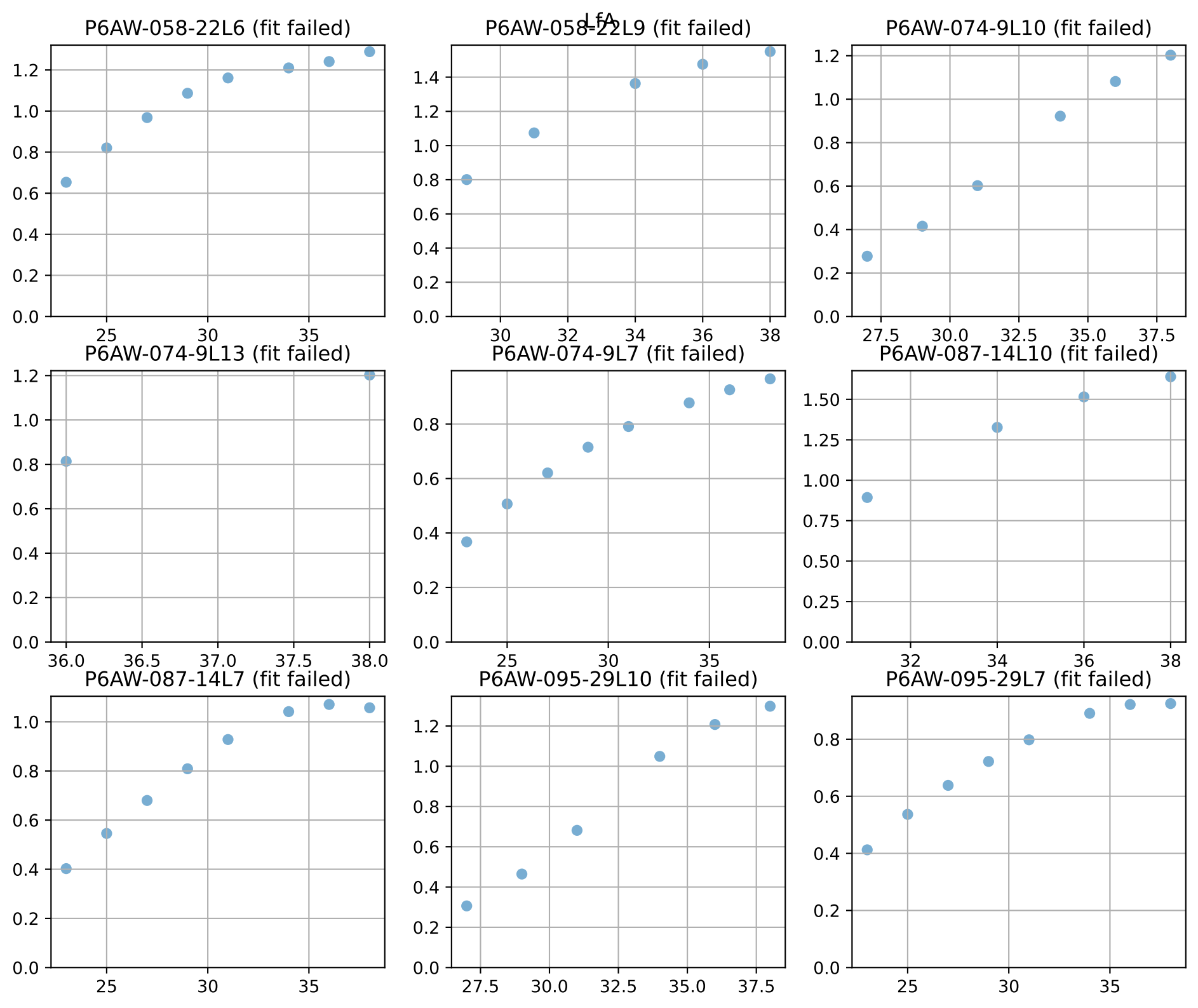

FrN
P6AW-058-22T1 (fit failed)
P6AW-074-9T1
Linear [0.66, -5.9, 8.9, 0.99]
P6AW-074-9T2
Linear [0.57, -8.51, 14.89, 1.0]
P6AW-087-14T1
Linear [1.04, -11.41, 10.93, 1.0]
P6AW-095-29T1
Linear [1.19, -11.93, 10.01, 0.99]
P6AW-095-29T2
Linear [0.57, -7.51, 13.14, 1.0]
P6AW-106-11T1
Linear [1.03, -10.99, 10.71, 0.99]
P6AW-106-11T2 (fit failed)
UF

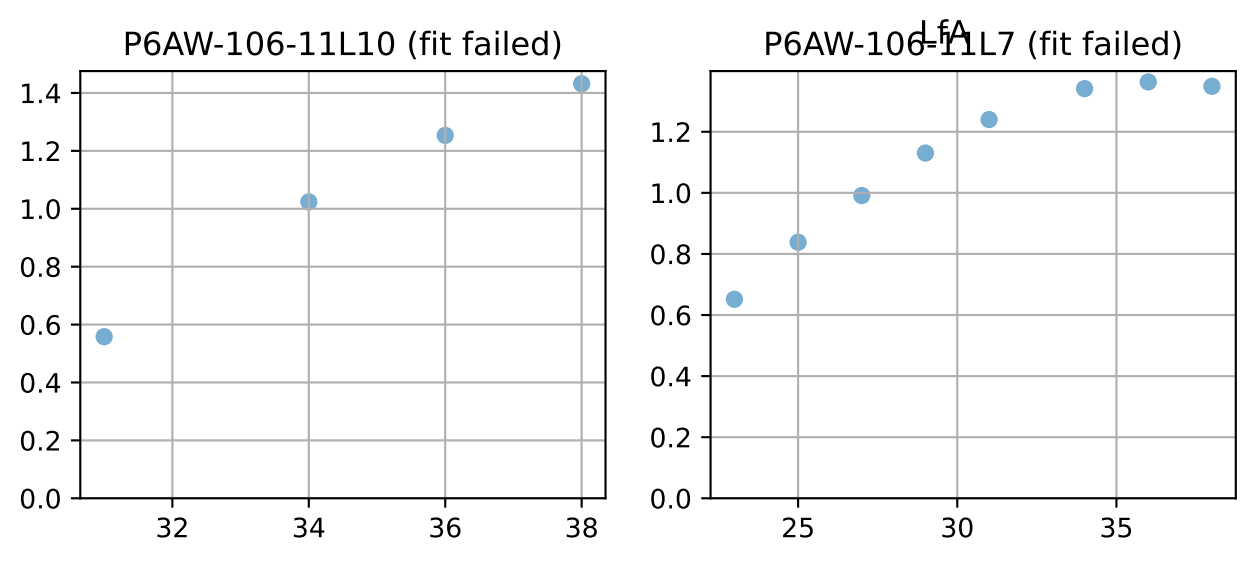

a (Def=0.45 Set=0.84)
avg1=0.84~32% avg2=na
P6AW FrN
P6AW
1.2
1.0
0.8
0.6
0.4
0.2
0.0
0
1
2
3
4
5
6
7
Object Number

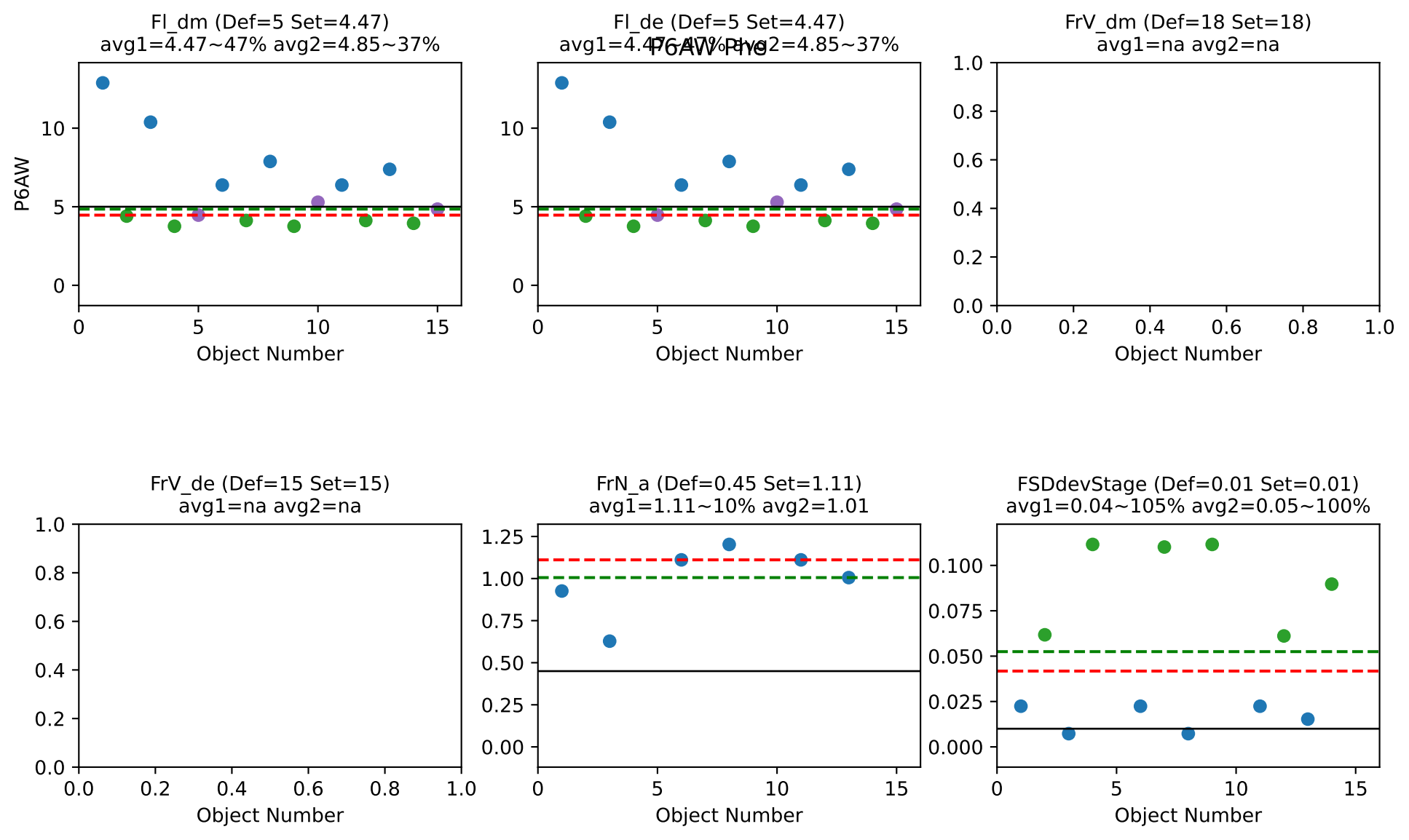

FrN
By Start Date
By Plant/Organ Age
P6AW
1.0
0.5
0.0
-0.5
-1.0
28
30
32
34
36
0
10
20
30
40

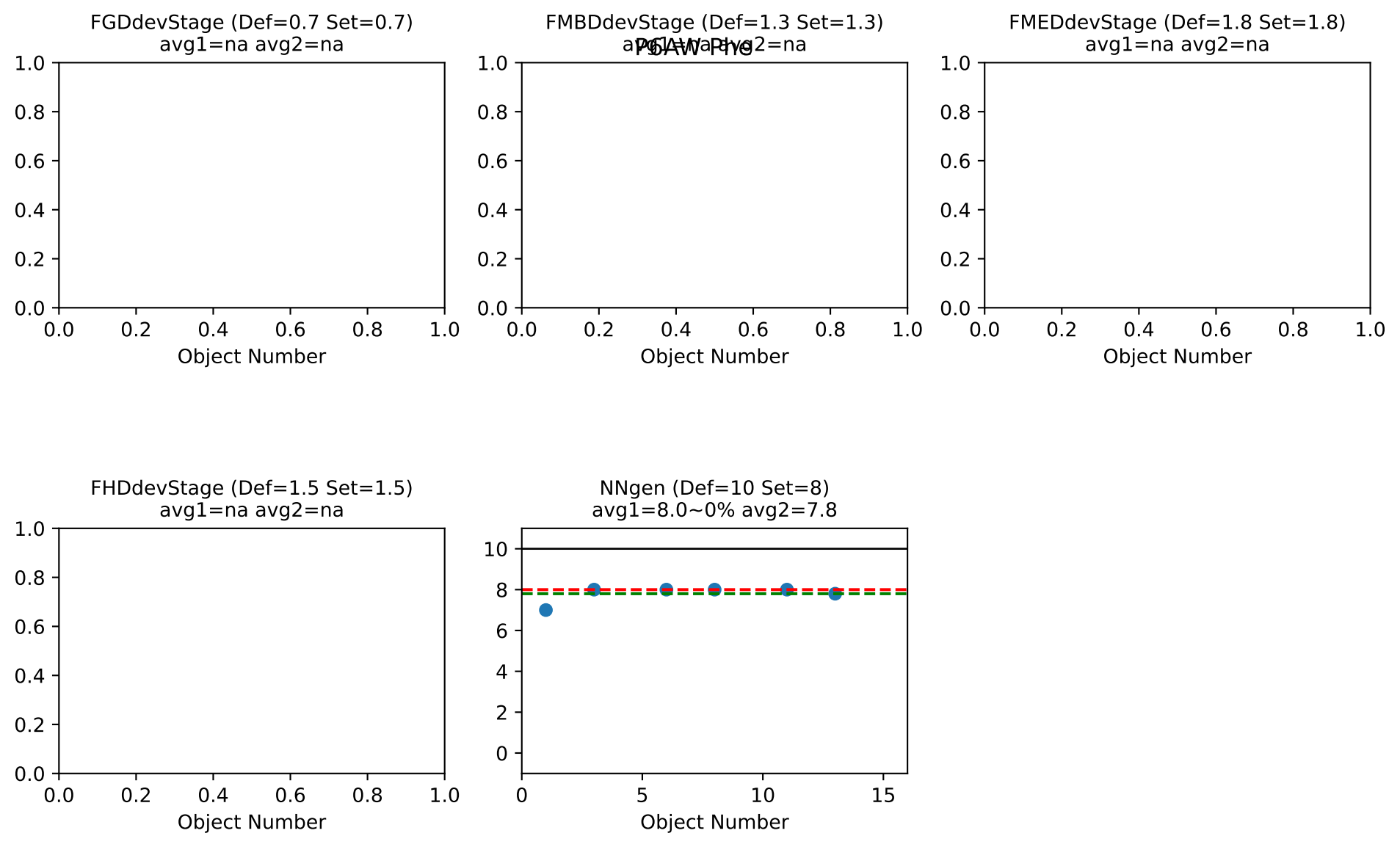

FrV
P6AW-058-22T1Fr1 (fit failed)
P6AW-058-22T1Fr5 (fit failed)
P6AW-058-22T2Fr1 (fit failed)
P6AW-074-9T1Fr1 (fit failed)
P6AW-074-9T1Fr5 (fit failed)
P6AW-074-9T2Fr1 (fit failed)
P6AW-087-14T1Fr1 (fit failed)
P6AW-087-14T1Fr5 (fit failed)
P6AW-095-29T1Fr1 (fit failed)

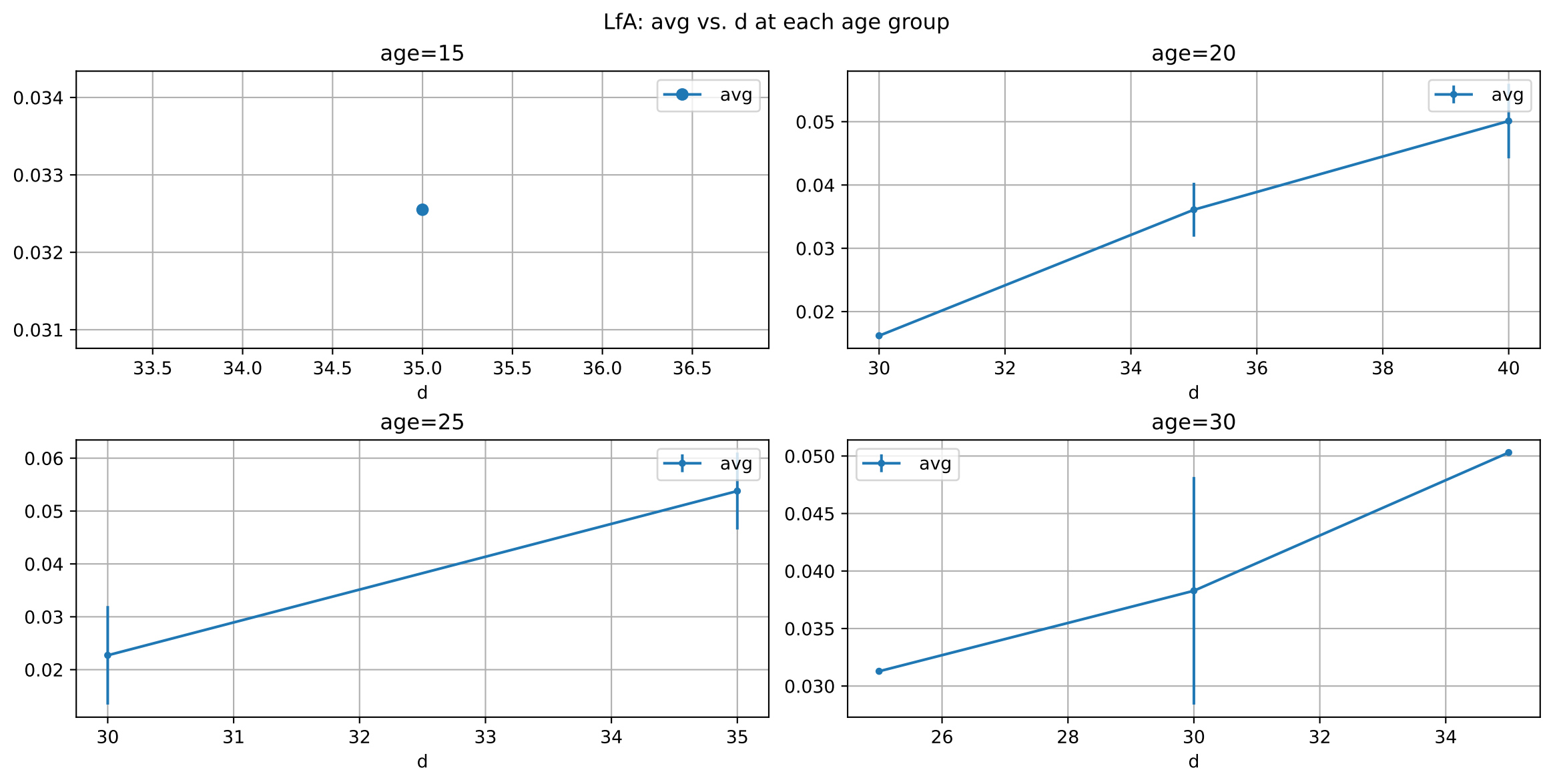

FrV
P6AW-095-29T1Fr5 (fit failed)
P6AW-095-29T2Fr1 (fit failed)
P6AW-095-29T2Fr5 (fit failed)
P6AW-106-11T1Fr1 (fit failed)
P6AW-106-11T1Fr5 (fit failed)
P6AW-106-11T2Fr1 (fit failed)

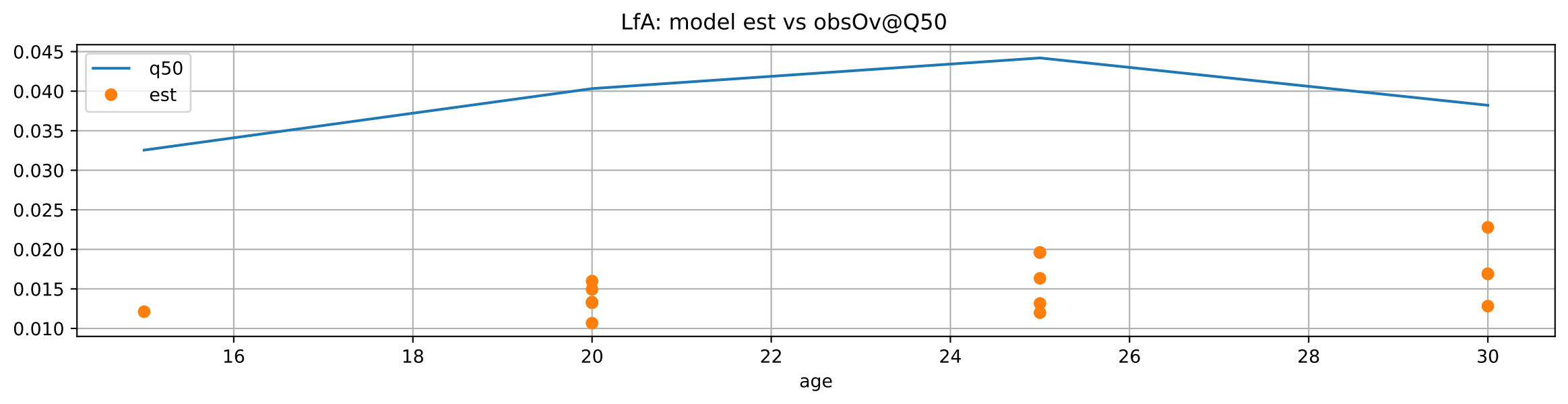

LfA
P6AW-058-22L6 (fit failed)
P6AW-058-22L9 (fit failed)
P6AW-074-9L10 (fit failed)
P6AW-074-9L13 (fit failed)
P6AW-074-9L7 (fit failed)
P6AW-087-14L10 (fit failed)
P6AW-087-14L7 (fit failed)
P6AW-095-29L10 (fit failed)
P6AW-095-29L7 (fit failed)

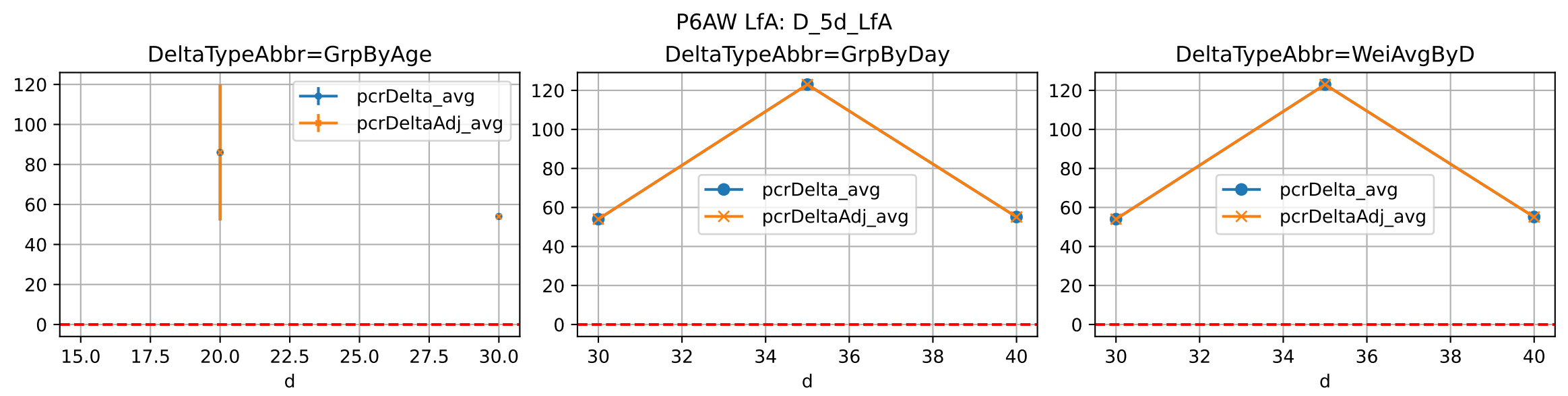

P6AW-106-11L10 (fit failed)
P6AW-106-11L7 (fit failed)
I_fA
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
32
34
36
38
25
30
35

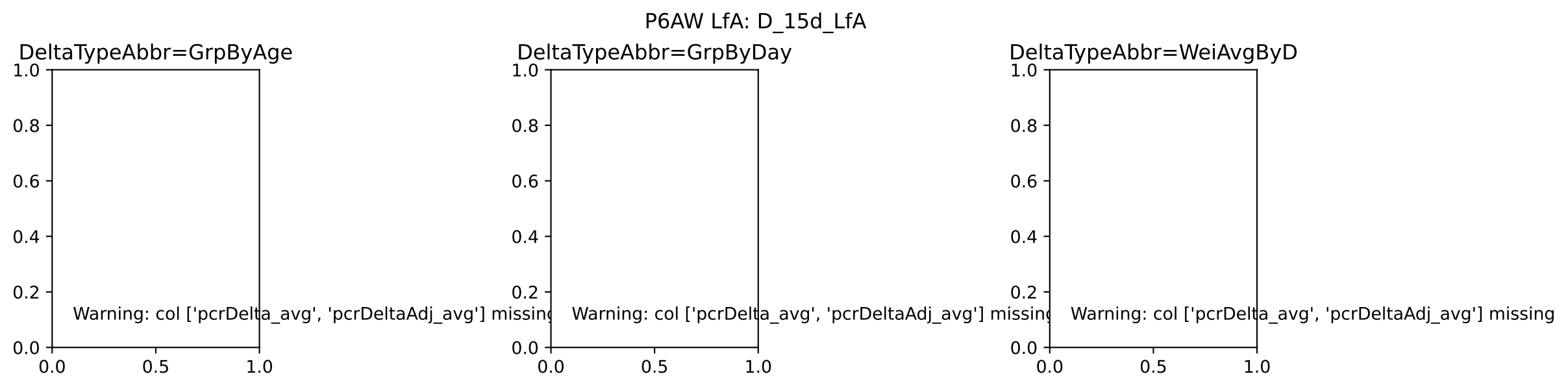

Fl_dm (Def=5 Set=4.47)
avg1=4.47~47% avg2=4.85~37%
P6AW
Object Number
Fl_de (Def=5 Set=4.47)
avg1=4.47~47% avg2=4.85~37%
P6AW
Object Number
FrV_dm (Def=18 Set=18)
avg1=na avg2=na
Object Number
FrV_de (Def=15 Set=15)
avg1=na avg2=na
Object Number
FrN_a (Def=0.45 Set=1.11)
avg1=1.11~10% avg2=1.01
Object Number
FSDdevStage (Def=0.01 Set=0.01)
avg1=0.04~105% avg2=0.05~100%
Object Number

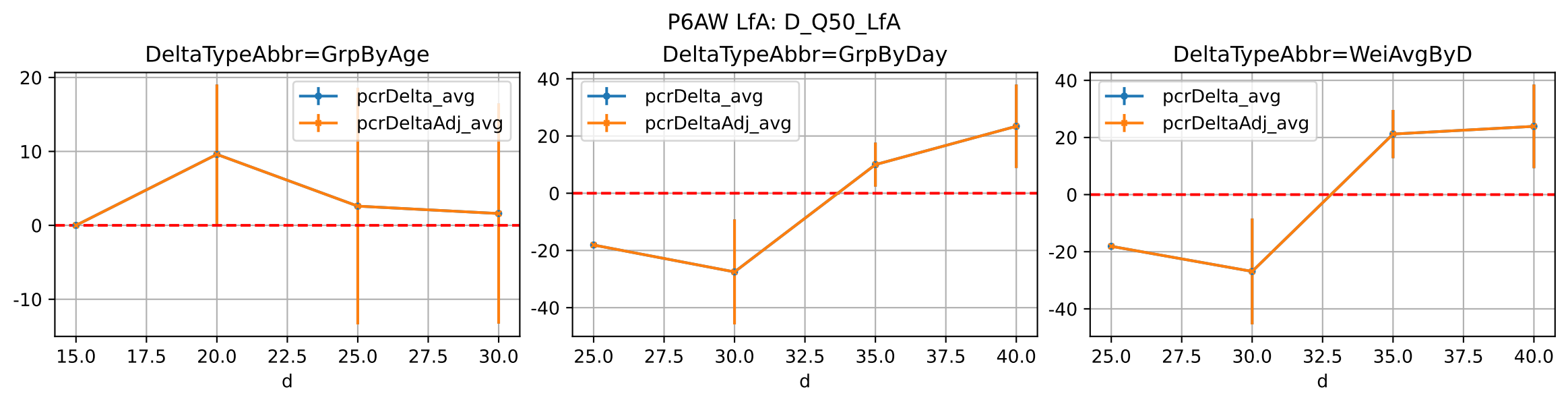

FGDdevStage (Def=0.7 Set=0.7)
avg1=na avg2=na
FMBDdevStage (Def=1.3 Set=1.3)
avg1=na avg2=na
FMEDdevStage (Def=1.8 Set=1.8)
avg1=na avg2=na
FHDdevStage (Def=1.5 Set=1.5)
avg1=na avg2=na
NNgen (Def=10 Set=8)
avg1=8.0~0% avg2=7.8
Object Number

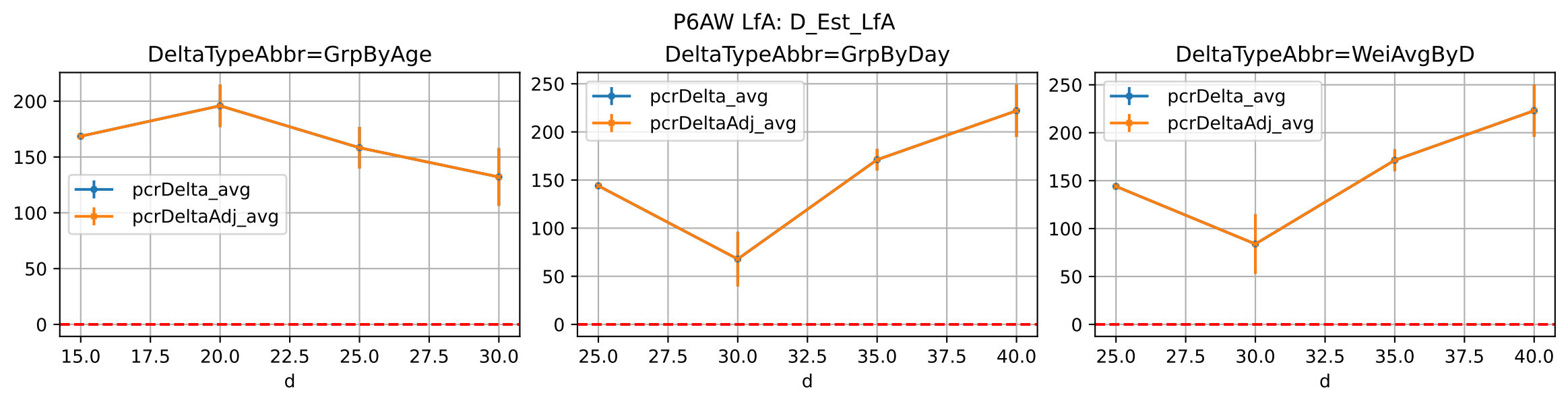

LfA: avg vs. d at each age group
age=15
avg
0.034
0.033
0.032
0.031
33.5
34.0
34.5
35.0
35.5
36.0
36.5
d
age=20
avg
0.05
0.04
0.03
0.02
30
32
34
36
38
40
d
age=25
avg
0.06
0.05
0.04
0.03
0.02
30
31
32
33
34
35
d
age=30
avg
0.050
0.045
0.040
0.035
0.030
26
28
30
32
34
d

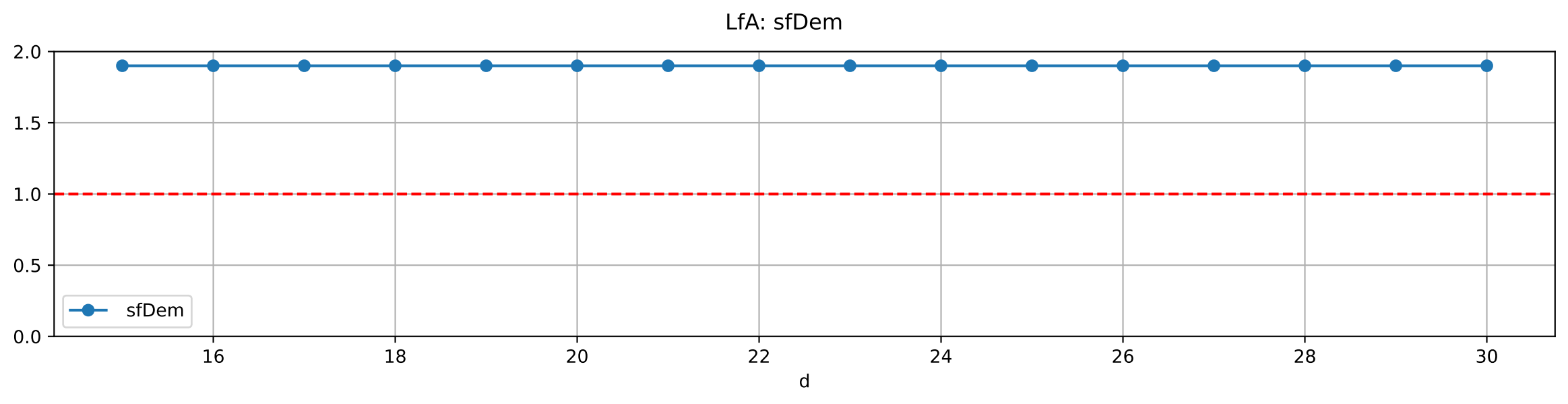

LfA: model est vs obsOv@Q50
q50
est
0.045
0.040
0.035
0.030
0.025
0.020
0.015
0.010
16
18
20
22
24
26
28
30
age


P6AW LfA: D_5d_LfA
DeltaTypeAbbr=GrpByAge
DeltaTypeAbbr=GrpByDay
DeltaTypeAbbr=WeiAvgByD
pcrDelta_avg
pcrDeltaAdj_avg
d

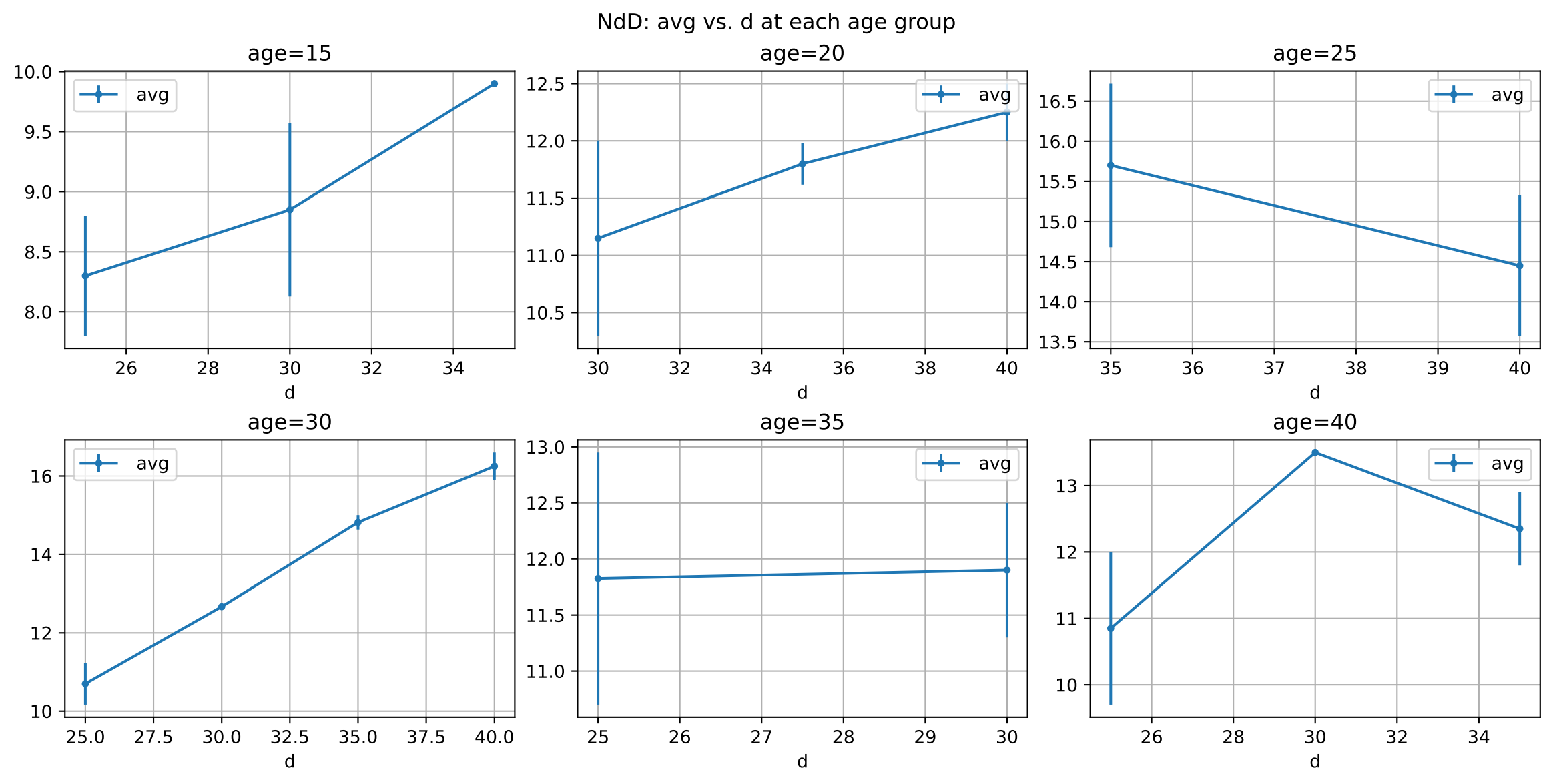

P6AW LfA: D_15d_LfA
DeltaTypeAbbr=GrpByAge
DeltaTypeAbbr=GrpByDay
DeltaTypeAbbr=WeiAvgByD
1.0
0.8
0.6
0.4
0.2
0.0
0.0
0.5
1.0
Warning: col ['pcrDelta_avg', 'pcrDeltaAdj_avg'] missing

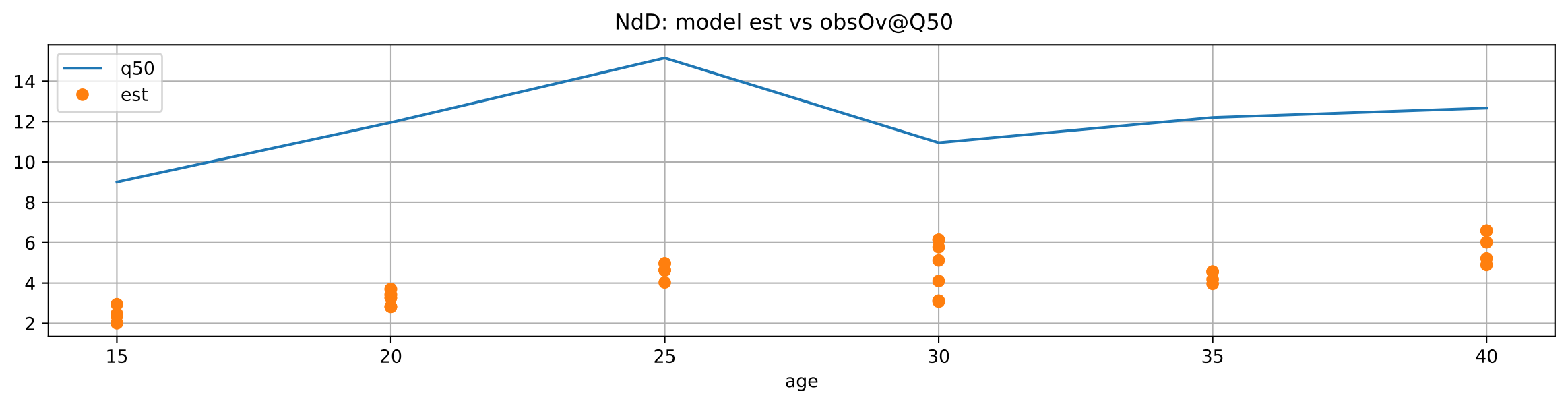

P6AW LfA: D_Q50_LfA
DeltaTypeAbbr=GrpByAge
DeltaTypeAbbr=GrpByDay
DeltaTypeAbbr=WeiAvgByD
pcrDelta_avg
pcrDeltaAdj_avg
d

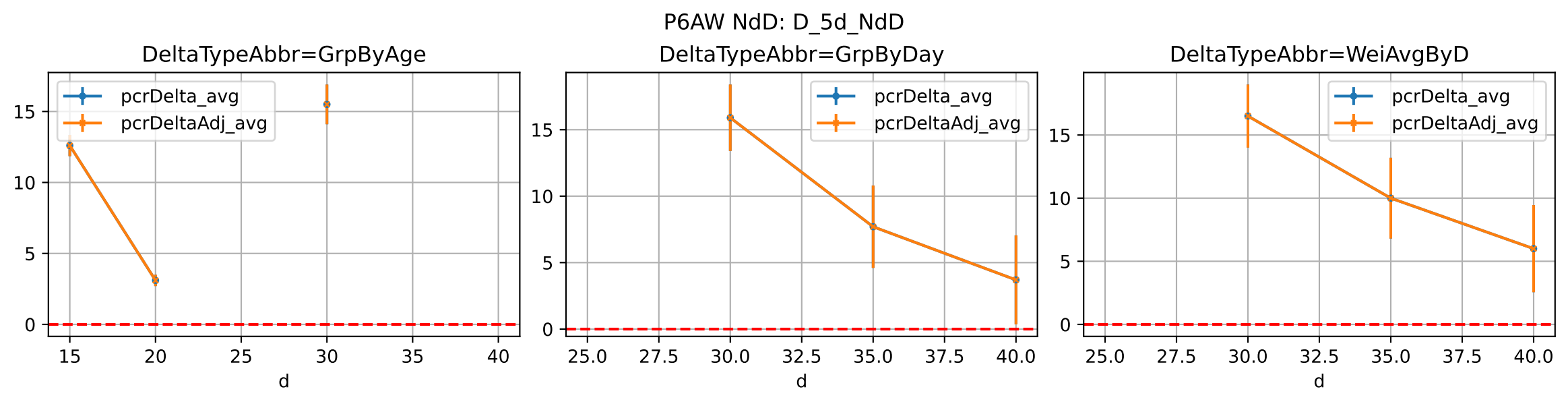

P6AW LfA: D_Est_LfA
DeltaTypeAbbr=GrpByAge
DeltaTypeAbbr=GrpByDay
DeltaTypeAbbr=WeiAvgByD
pcrDelta_avg
pcrDeltaAdj_avg
d

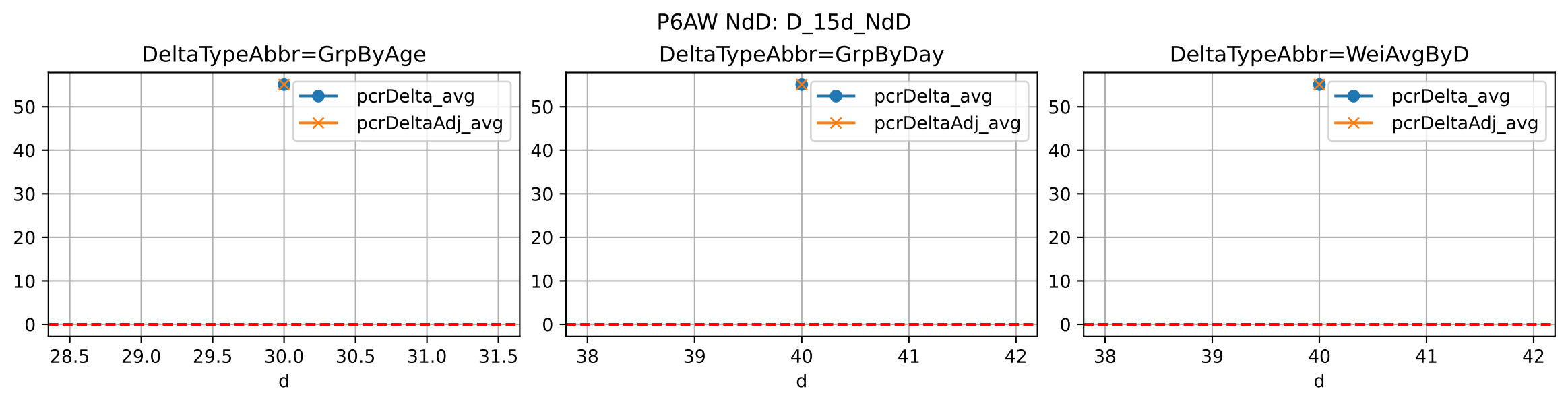

LfA: sfDem
2.0
1.5
1.0
0.5
0.0
sfDem
16
18
20
22
24
26
28
30
d

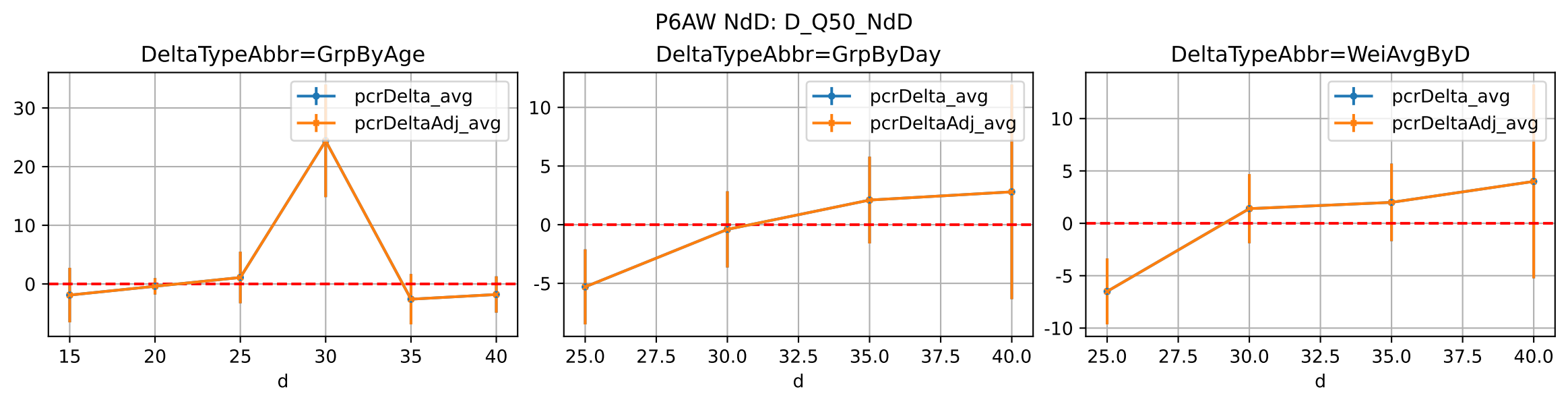

d
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
40
20
0
-20
-40

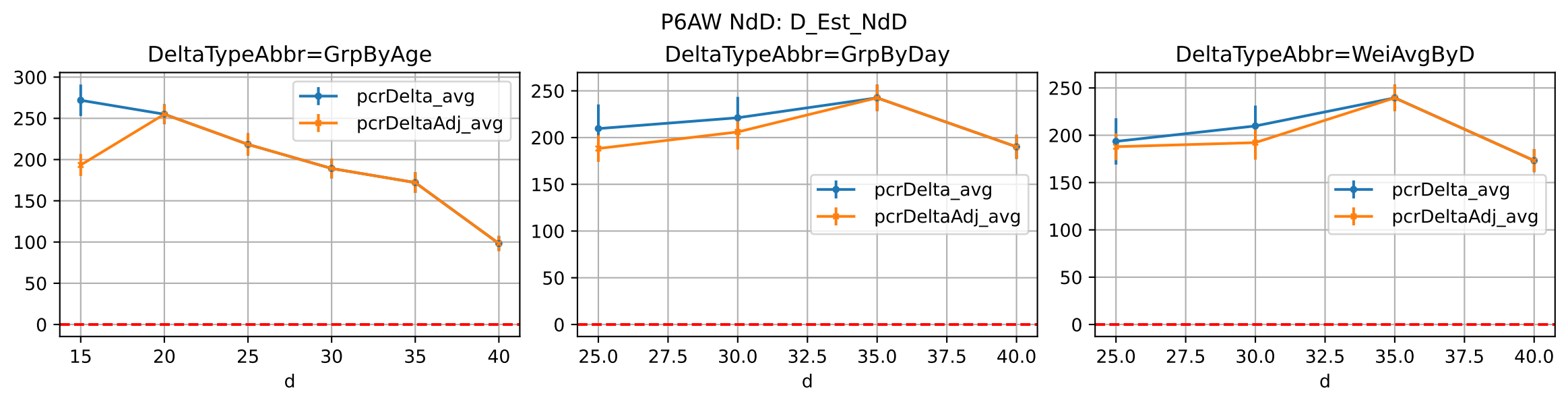

NdD: avg vs. d at each age group
age=15
age=20
age=25
age=30
age=35
age=40
avg
d

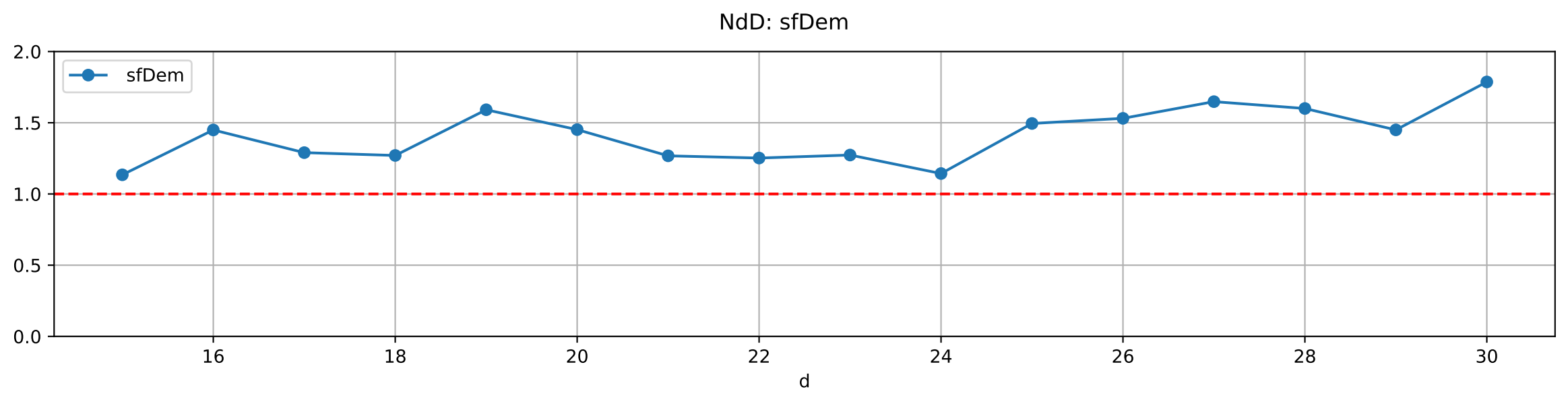

NdD: model est vs obsOv@Q50
q50
est
14
12
10
8
6
4
2
15
20
25
30
35
40
age


P6AW NdD: D_5d_NdD
DeltaTypeAbbr=GrpByAge
DeltaTypeAbbr=GrpByDay
DeltaTypeAbbr=WeiAvgByD
pcrDelta_avg
pcrDeltaAdj_avg
d

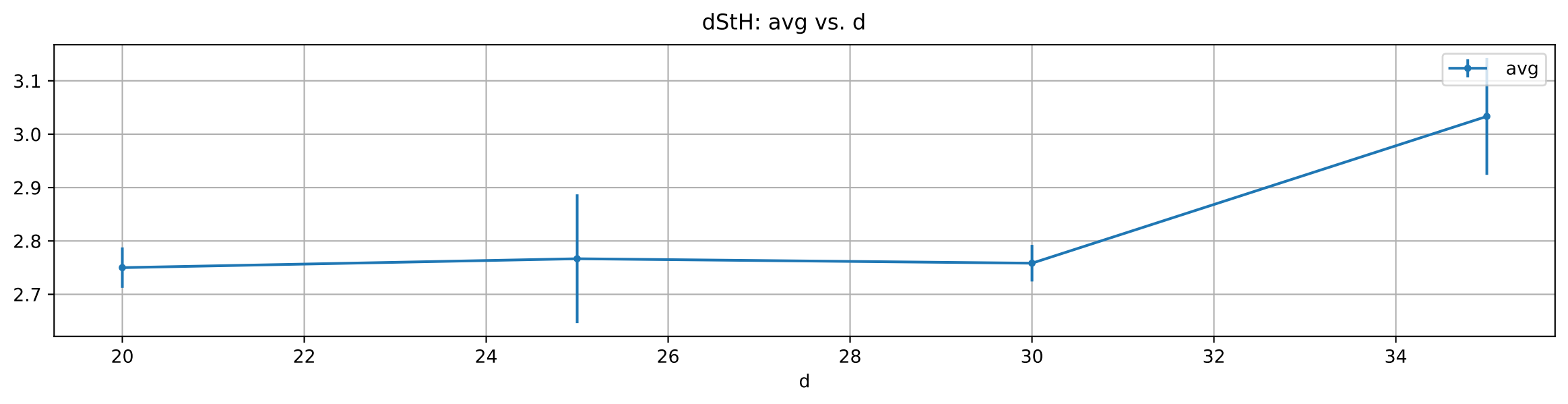

P6AW NdD: D_15d_NdD
DeltaTypeAbbr=GrpByAge
DeltaTypeAbbr=GrpByDay
DeltaTypeAbbr=WeiAvgByD
pcrDelta_avg
pcrDeltaAdj_avg
50
40
30
20
10
0
28.5
29.0
29.5
30.0
30.5
31.5
38
39
40
41
42
d

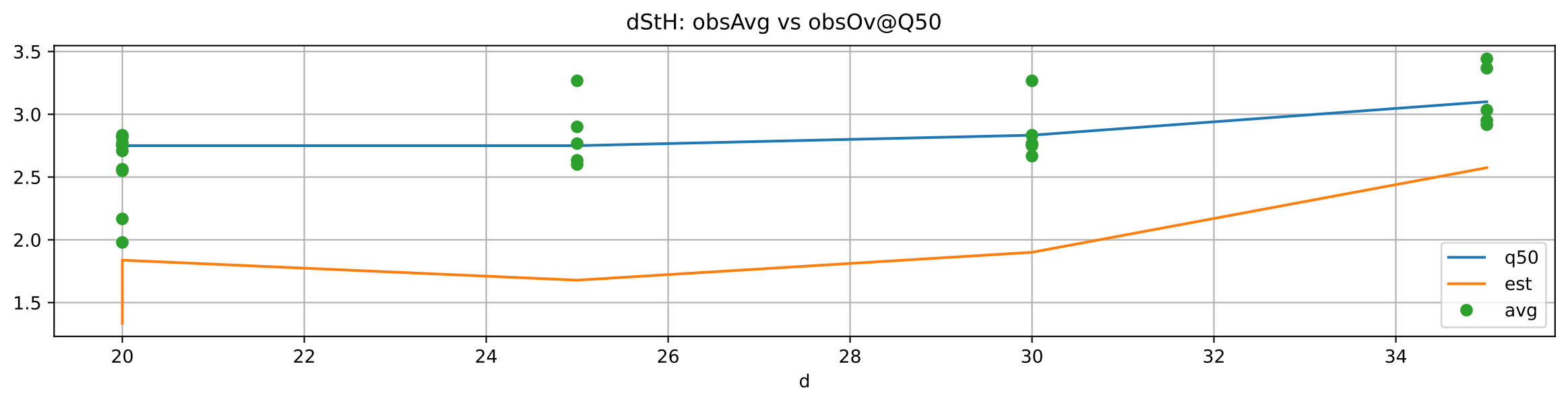

P6AW NdD: D_Q50_NdD
DeltaTypeAbbr=GrpByAge
DeltaTypeAbbr=GrpByDay
DeltaTypeAbbr=WeiAvgByD
pcrDelta_avg
pcrDeltaAdj_avg
d

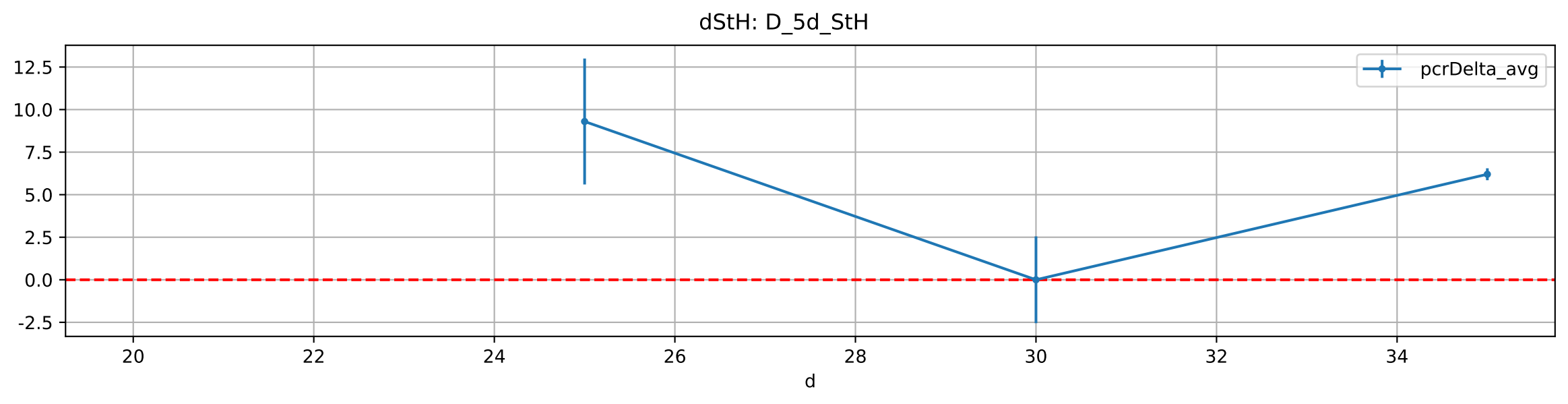

P6AW NdD: D_Est_NdD
DeltaTypeAbbr=GrpByAge
DeltaTypeAbbr=GrpByDay
DeltaTypeAbbr=WeiAvgByD
pcrDelta_avg
pcrDeltaAdj_avg
d

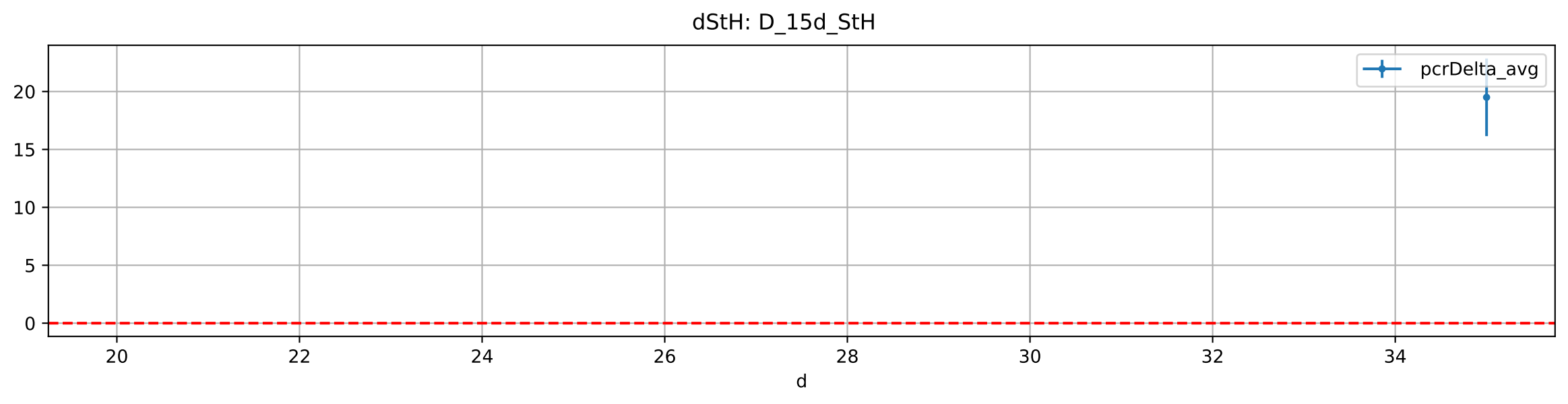

NdD: sfDem
sfDem
2.0
1.5
1.0
0.5
0.0
16
18
20
22
24
26
28
30
d

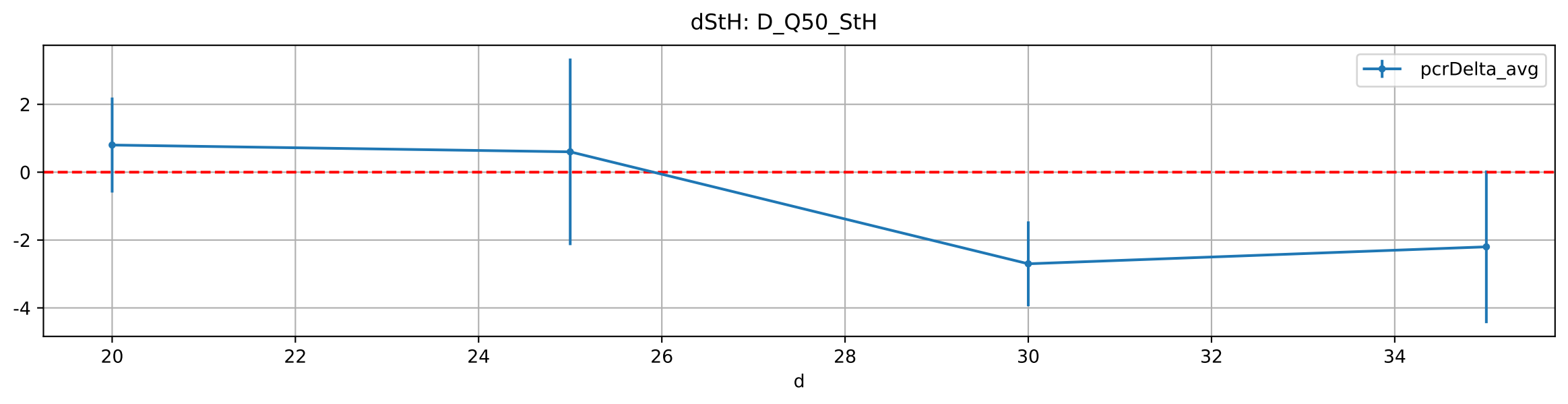

d
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
40
20
0
-20
-40

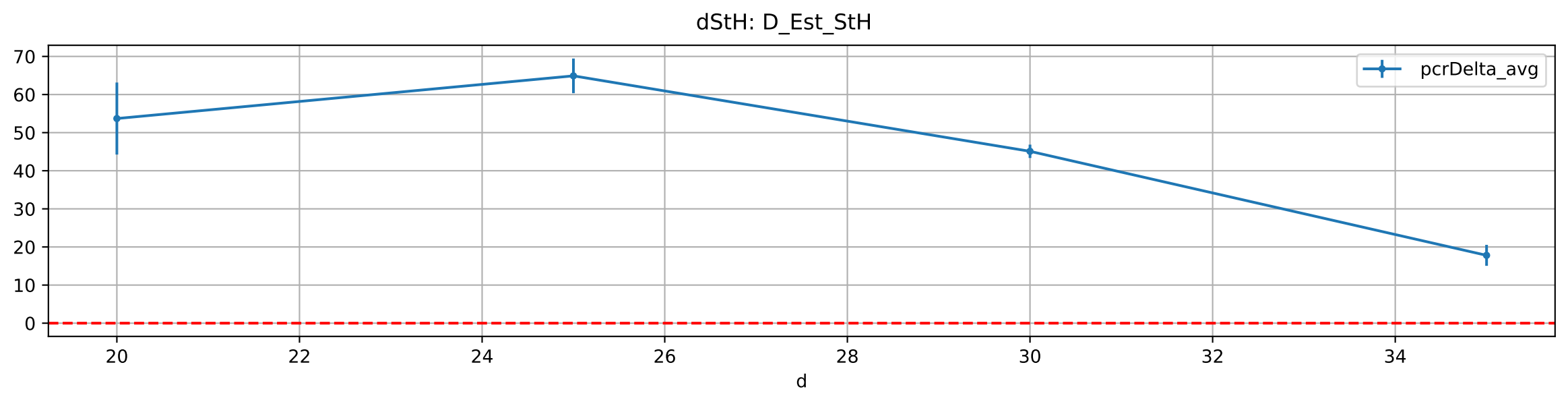

dStH: avg vs. d
avg
3.1
3.0
2.9
2.8
2.7
20
22
24
26
28
30
32
34
d

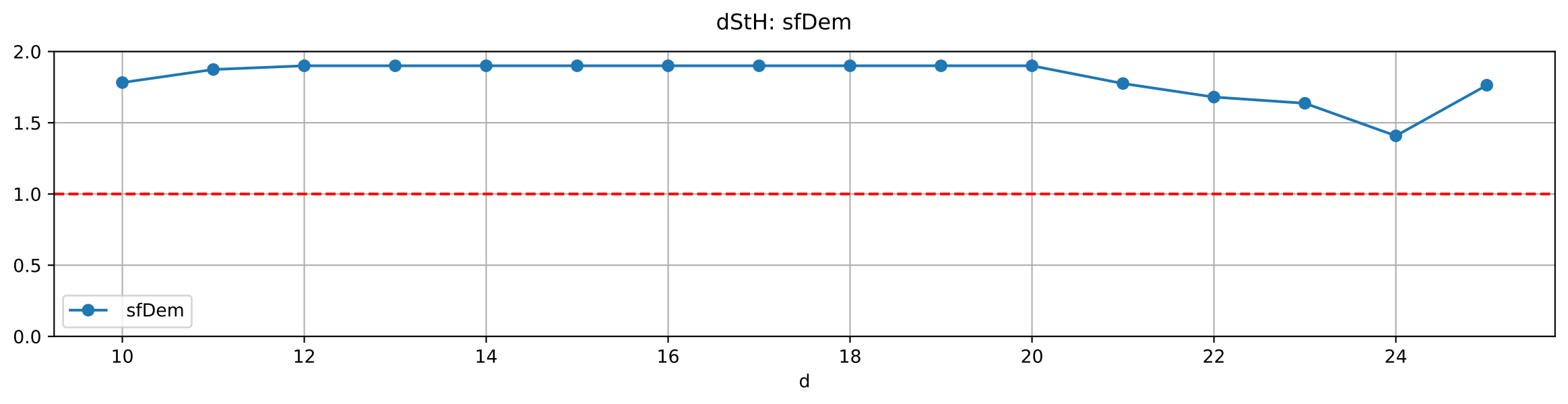

dStH: obsAvg vs obsOv@Q50
3.5
3.0
2.5
2.0
1.5
20
22
24
26
28
30
32
34
d
q50
est
avg


dStH: D_5d_StH
pcrDelta_avg
12.5
10.0
7.5
5.0
2.5
0.0
-2.5
20
22
24
26
28
30
32
34
d

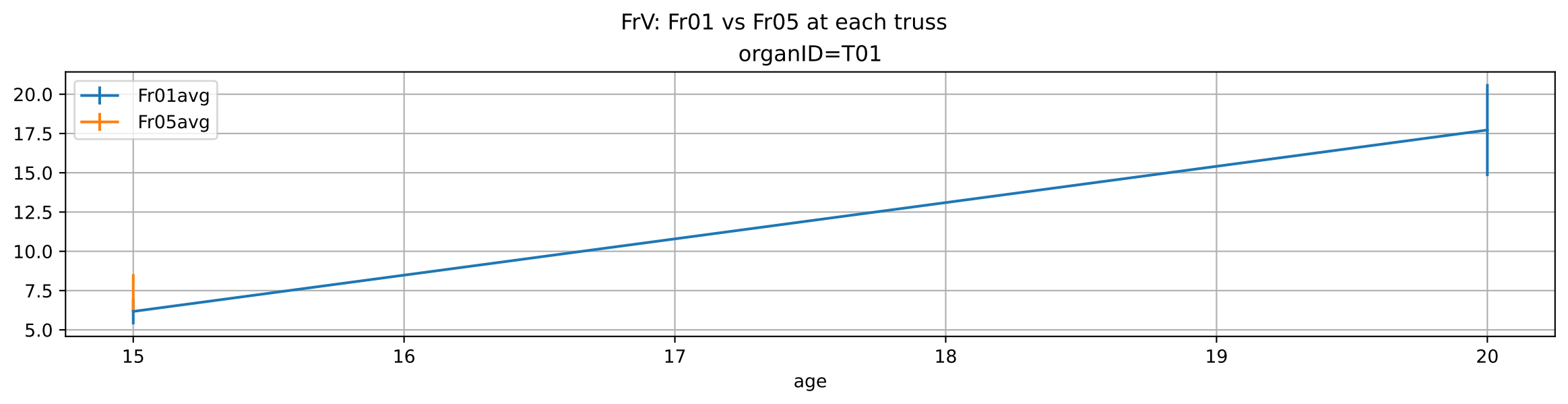

dStH: D_15d_StH
pcrDelta_avg
20
15
10
5
0
20
22
24
26
28
30
32
34
d

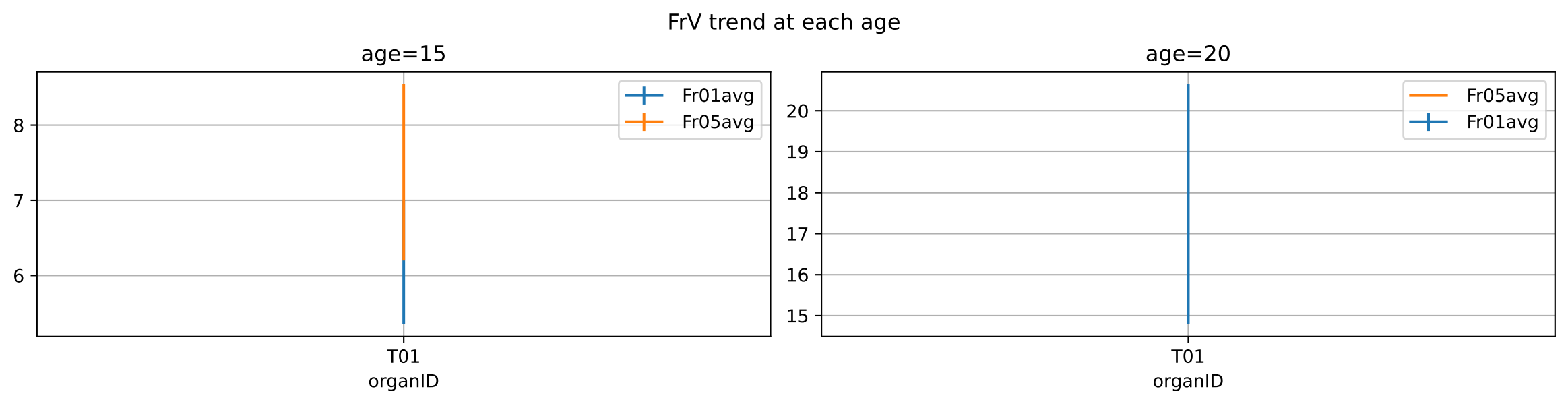

dStH: D_Q50_StH
pcrDelta_avg
2
0
-2
-4
20
22
24
26
28
30
32
34
d

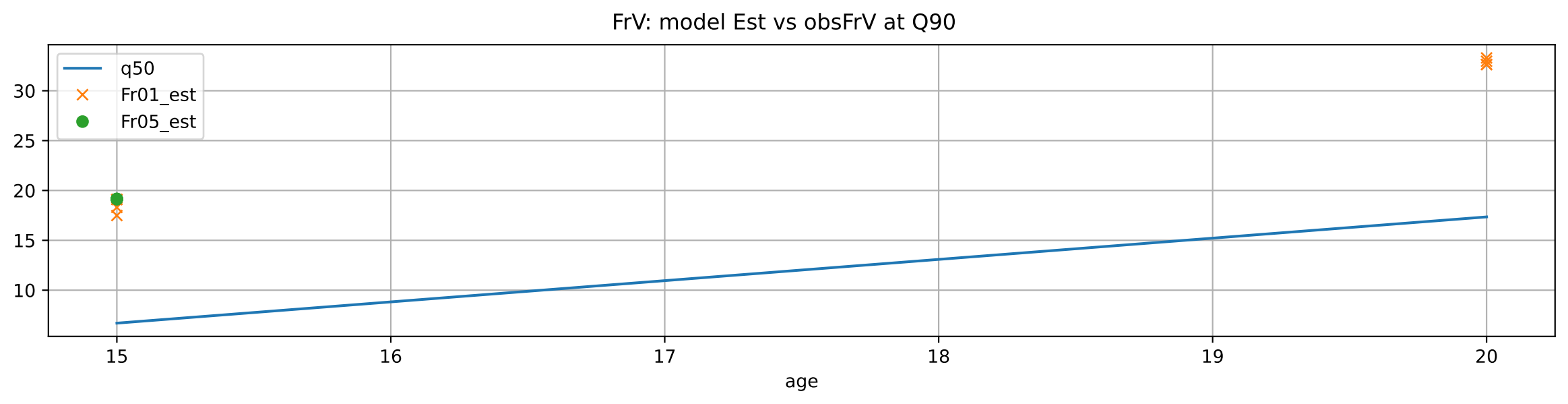

dStH: D_Est_StH
pcrDelta_avg
70
60
50
40
30
20
10
0
20
22
24
26
28
30
32
34
d

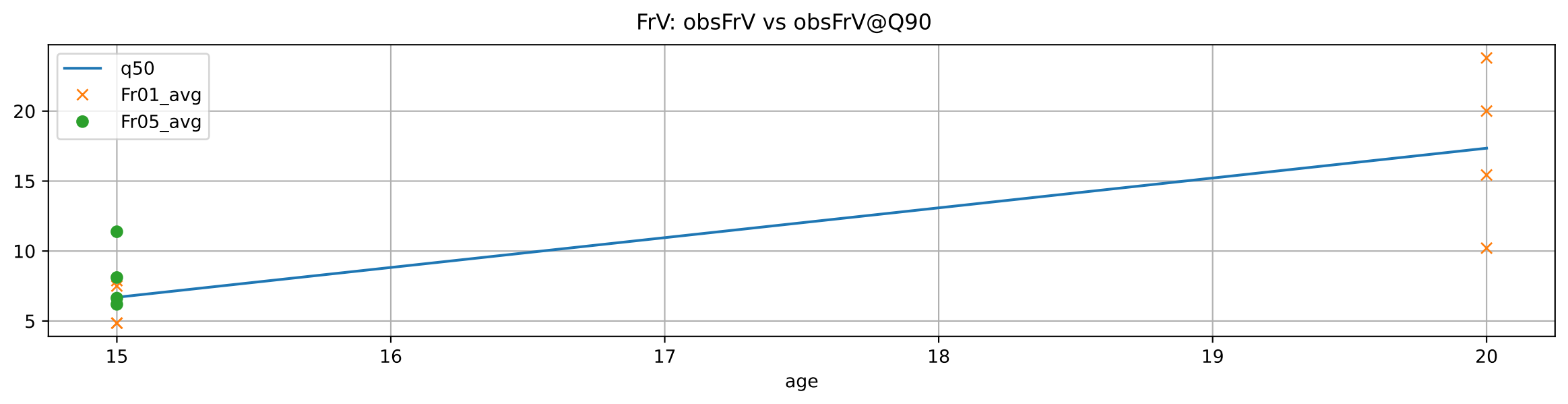

dStH: sfDem
2.0
1.5
1.0
0.5
0.0
sfDem
10
12
14
16
18
20
22
24
d

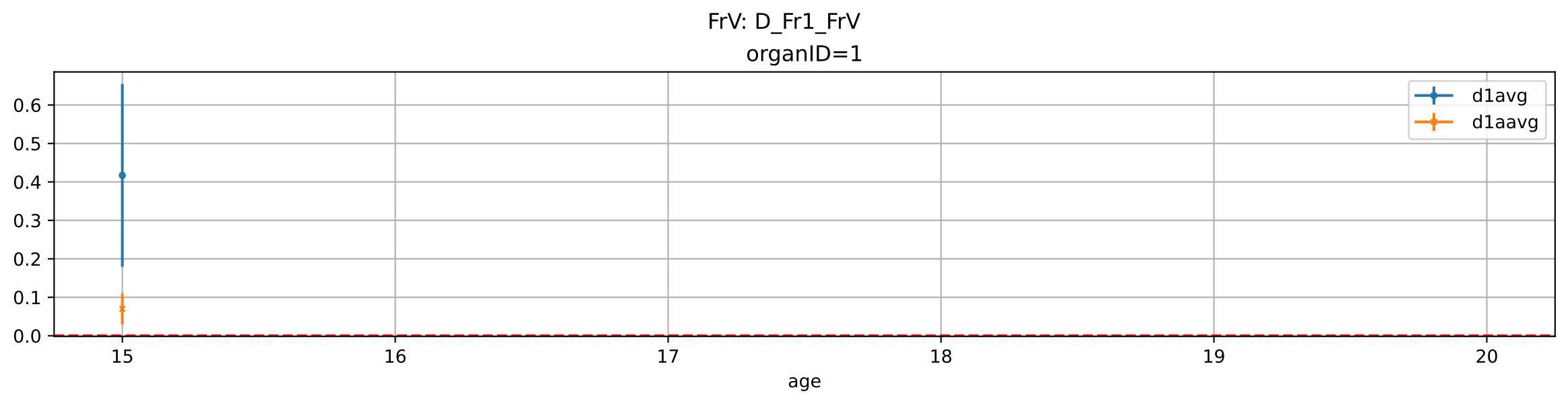

d
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
40
20
0
-20
-40

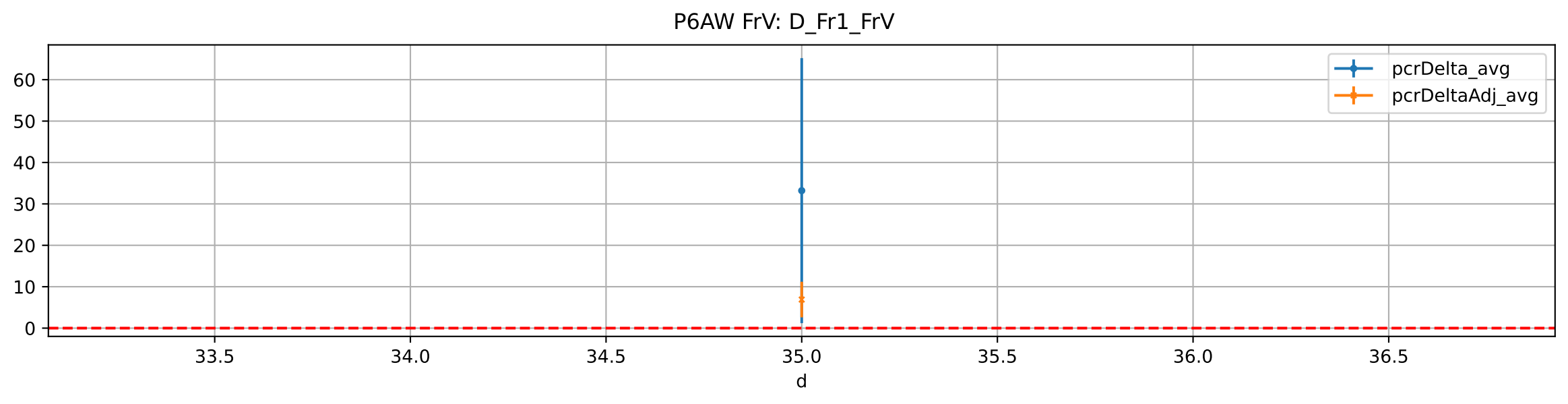

FrV: Fr01 vs Fr05 at each truss
organID=T01
Fr01avg
Fr05avg
20.0
17.5
15.0
12.5
10.0
7.5
5.0
15
16
17
18
19
20
age

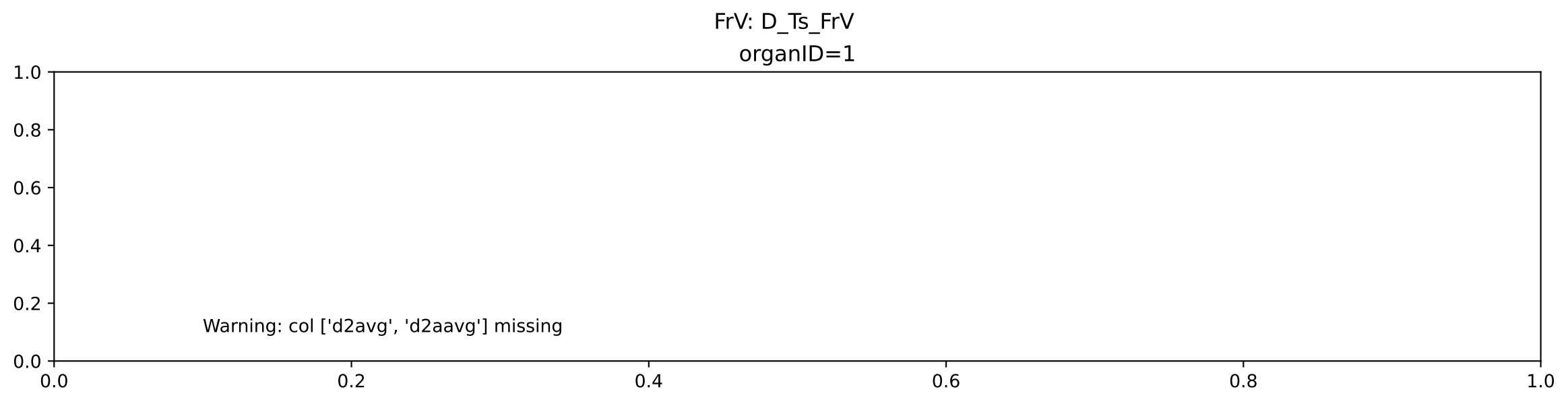

FrV trend at each age
age=15
Fr01avg
Fr05avg
8
7
6
T01
organID
age=20
Fr05avg
Fr01avg
20
19
18
17
16
15
T01
organID

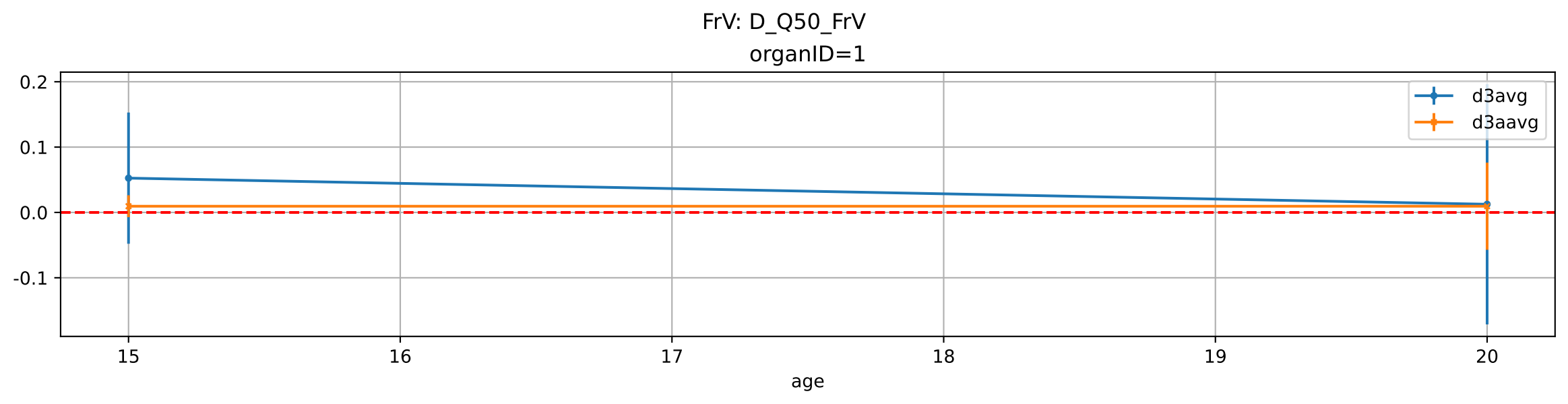

FrV: model Est vs obsFrV at Q90
q50
Fr01_est
Fr05_est
30
25
20
15
10
15
16
17
18
19
20
age

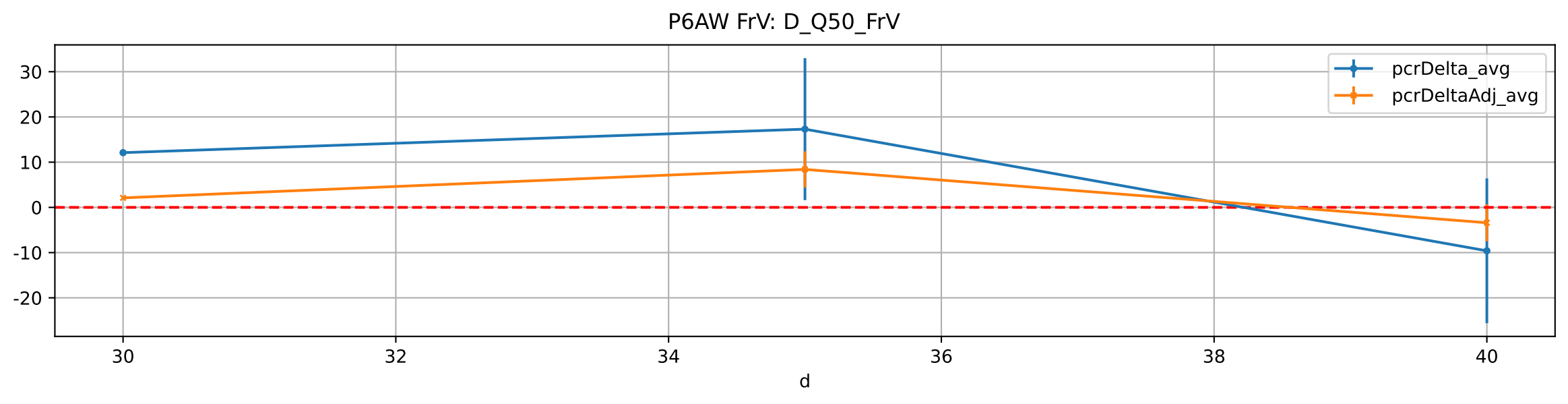

FrV: obsFrV vs obsFrV@Q90
q50
Fr01_avg
Fr05_avg
20
15
10
5
15
16
17
18
19
20
age

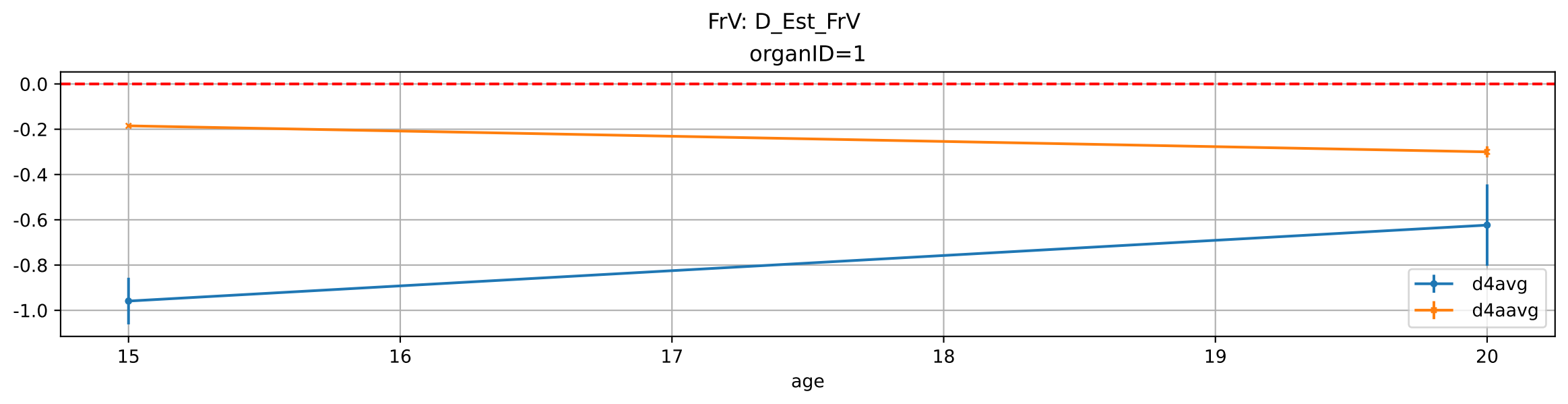

FrV: D_Fr1_FrV
organID=1
d1avg
d1aavg
0.0
0.1
0.2
0.3
0.4
0.5
0.6
15
16
17
18
19
20
age


P6AW FrV: D_Fr1_FrV
pcrDelta_avg
pcrDeltaAdj_avg
60
50
40
30
20
10
0
33.5
34.0
34.5
35.0
35.5
36.0
36.5
d

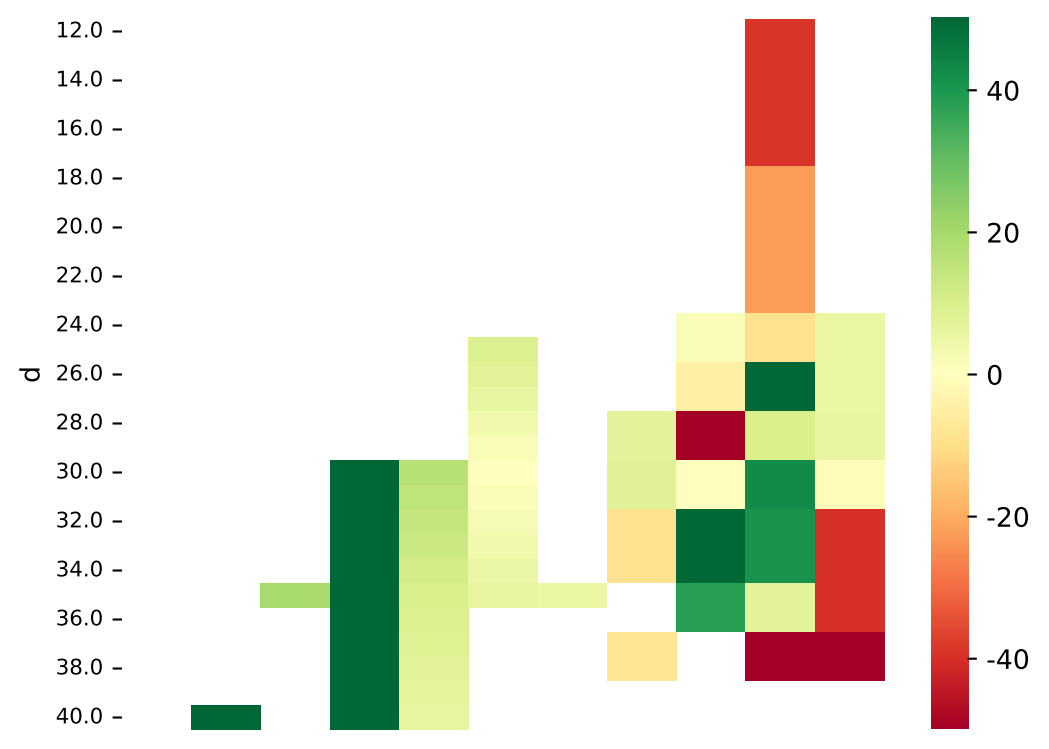

FrV: D_Ts_FrV
organID=1
Warning: col ['d2avg', 'd2aavg'] missing
1.0
0.8
0.6
0.4
0.2
0.0
0.0
0.2
0.4
0.6
0.8
1.0


FrV: D_Q50_FrV
organID=1
d3avg
d3aavg
0.2
0.1
0.0
-0.1
15
16
17
18
19
20
age


P6AW FrV: D_Q50_FrV
pcrDelta_avg
pcrDeltaAdj_avg
30
20
10
0
-10
-20
30
32
34
36
38
40
d


FrV: D_Est_FrV
organID=1
0.0
-0.2
-0.4
-0.6
-0.8
-1.0
15
16
17
18
19
20
age
d4avg
d4aavg


d
30.0
31.0
32.0
33.0
34.0
35.0
36.0
37.0
38.0
39.0
40.0
40
20
0
-20
-40


d
12.0
14.0
16.0
18.0
20.0
22.0
24.0
26.0
28.0
30.0
32.0
34.0
36.0
38.0
40.0
40
20
0
-20
-40