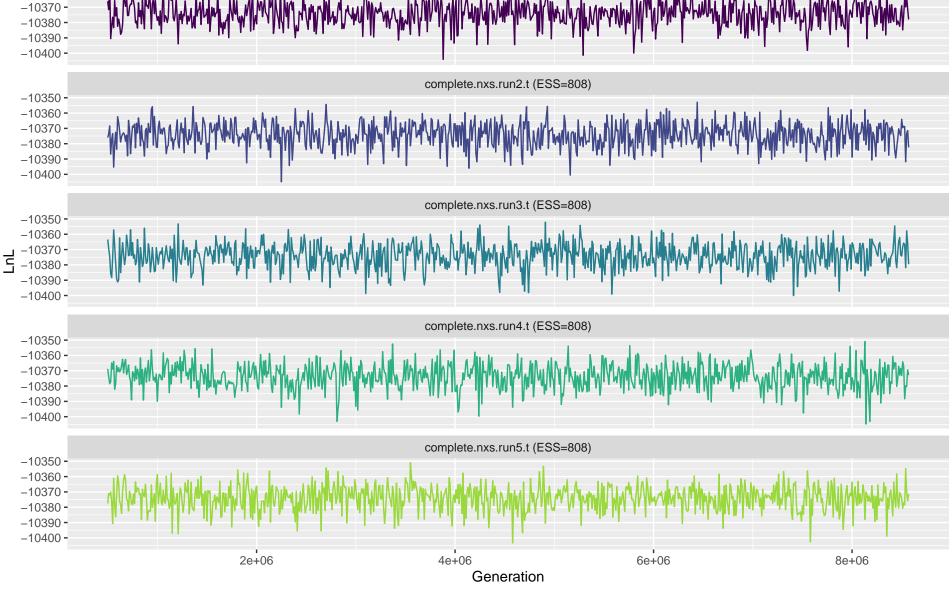
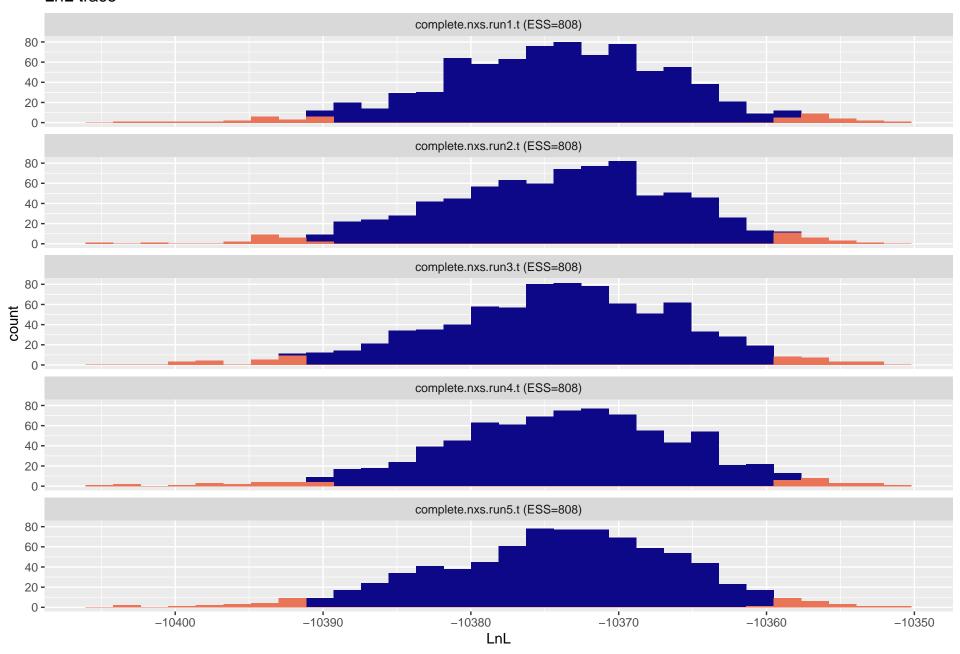
LnL trace complete.nxs.run1.t (ESS=808) -10350 **-**-10360 complete.nxs.run2.t (ESS=808) complete.nxs.run3.t (ESS=808) complete.nxs.run4.t (ESS=808)



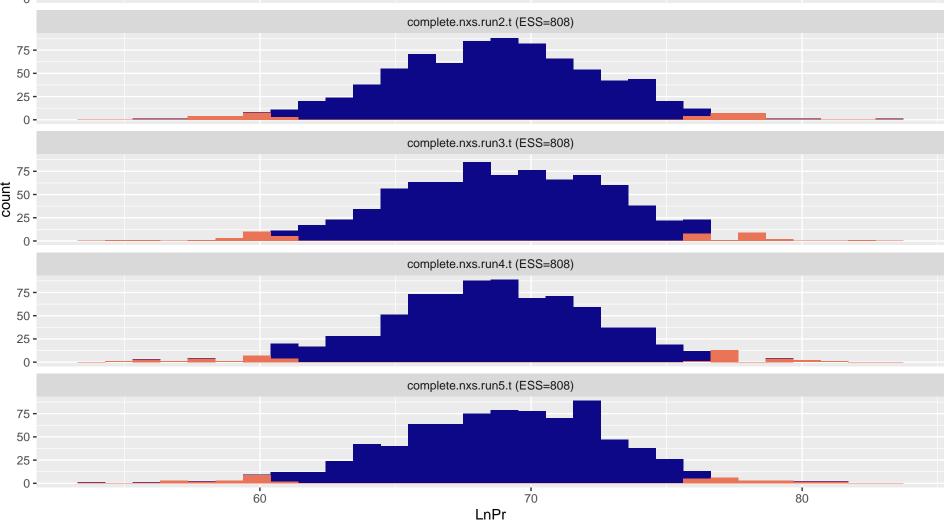
LnL trace



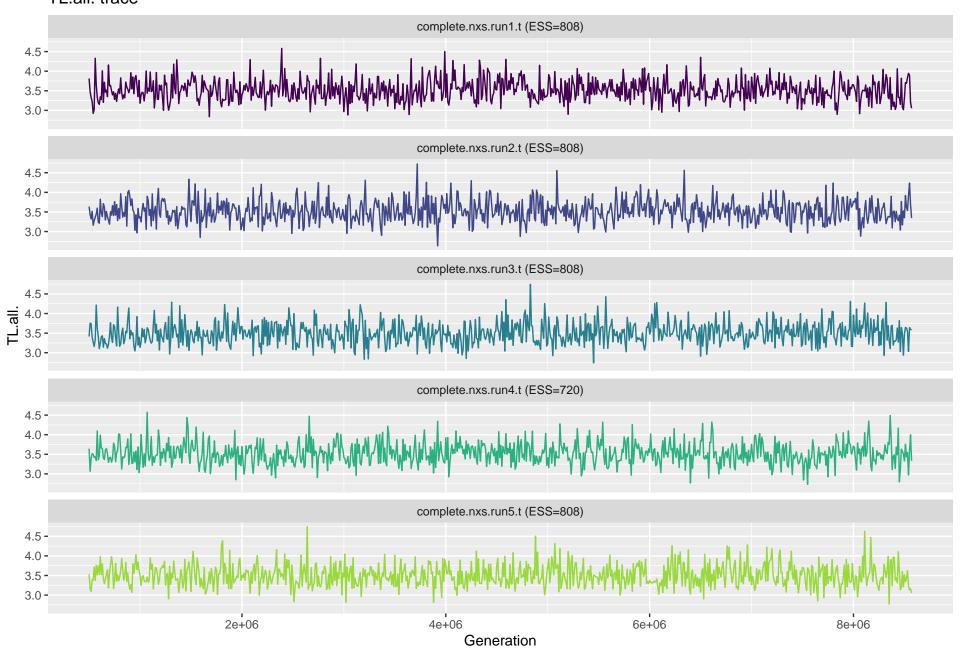
LnPr trace 80 -70 -60 complete.nxs.run2.t (ESS=808) 80 -70 -60 complete.nxs.run3.t (ESS=808) 80 -<u>r</u> 70 -60 complete.nxs.run4.t (ESS=808) 80 -70 -60 complete.nxs.run5.t (ESS=808) 80 -70 -60 -2e+06 4e+06 6e+06 8e+06

Generation

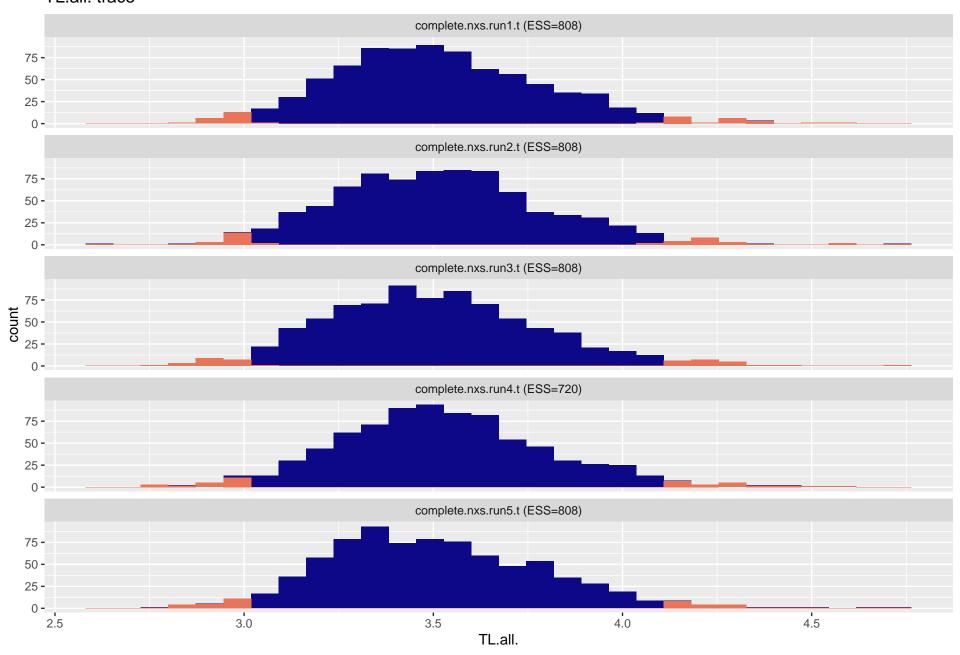
LnPr trace complete.nxs.run1.t (ESS=808) 75 **-**50 -25 -0 complete.nxs.run2.t (ESS=808) 75 -50 -25 **-**0 complete.nxs.run3.t (ESS=808) 75 ontroo ₂₅ -0 complete.nxs.run4.t (ESS=808) 75 **-**50 **-**25 **-**0 complete.nxs.run5.t (ESS=808) 75 **-**



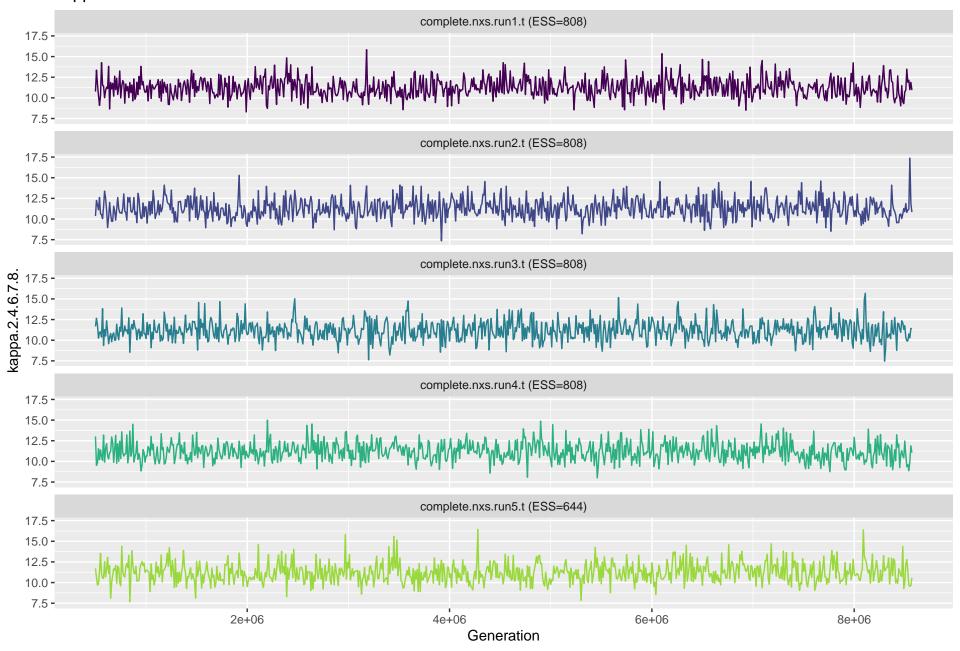
TL.all. trace



TL.all. trace



kappa.2.4.6.7.8. trace



kappa.2.4.6.7.8. trace complete.nxs.run1.t (ESS=808) 90 -60 -30 -0 complete.nxs.run2.t (ESS=808) 90 -60 **-**30 -0 complete.nxs.run3.t (ESS=808) 90 contraction 30 -0 complete.nxs.run4.t (ESS=808) 90 -60 -30 -0 complete.nxs.run5.t (ESS=644) 90 -60 -30 -0 -12 15 9 kappa.2.4.6.7.8.

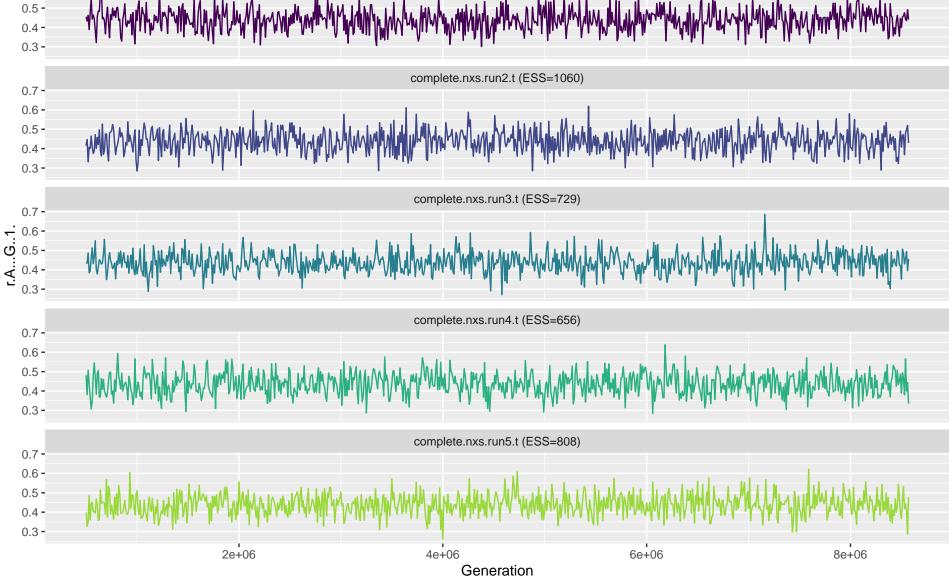
r.A...C..1. trace



r.A...C..1. trace complete.nxs.run1.t (ESS=808) 150 **-**100 -50 **-**0 complete.nxs.run2.t (ESS=793) 150 **-**100 -50 -0 complete.nxs.run3.t (ESS=739) 150 **-**100 -50 -50 -0 complete.nxs.run4.t (ESS=808) 150 **-**100 -50 -0 complete.nxs.run5.t (ESS=808) 150 -100 -50 -0 -0.2 0.0 0.1

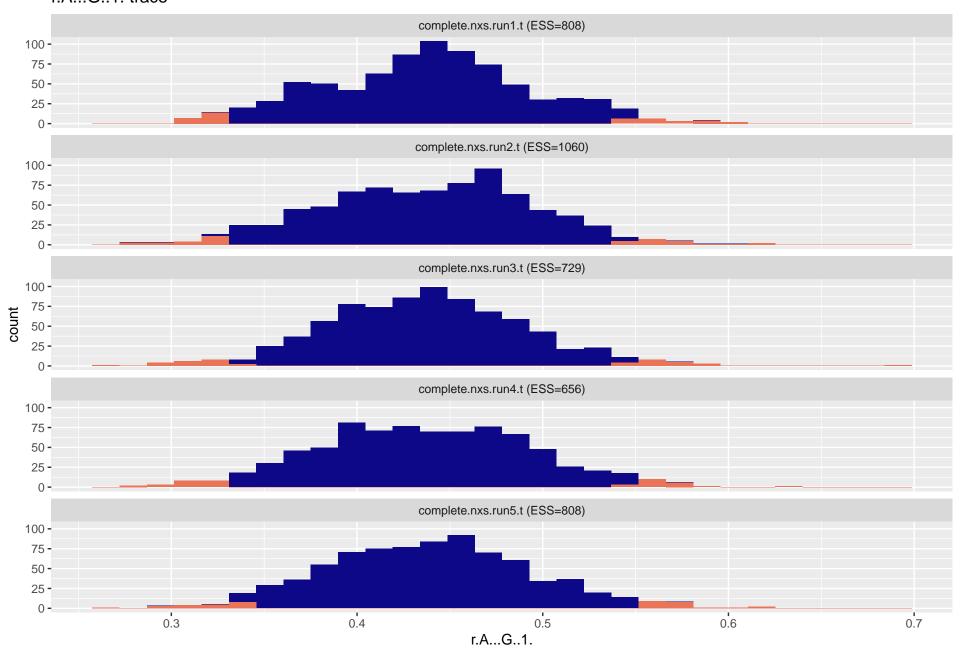
r.A...C..1.

r.A...G..1. trace complete.nxs.run1.t (ESS=808) complete.nxs.run2.t (ESS=1060) complete.nxs.run3.t (ESS=729) complete.nxs.run4.t (ESS=656)

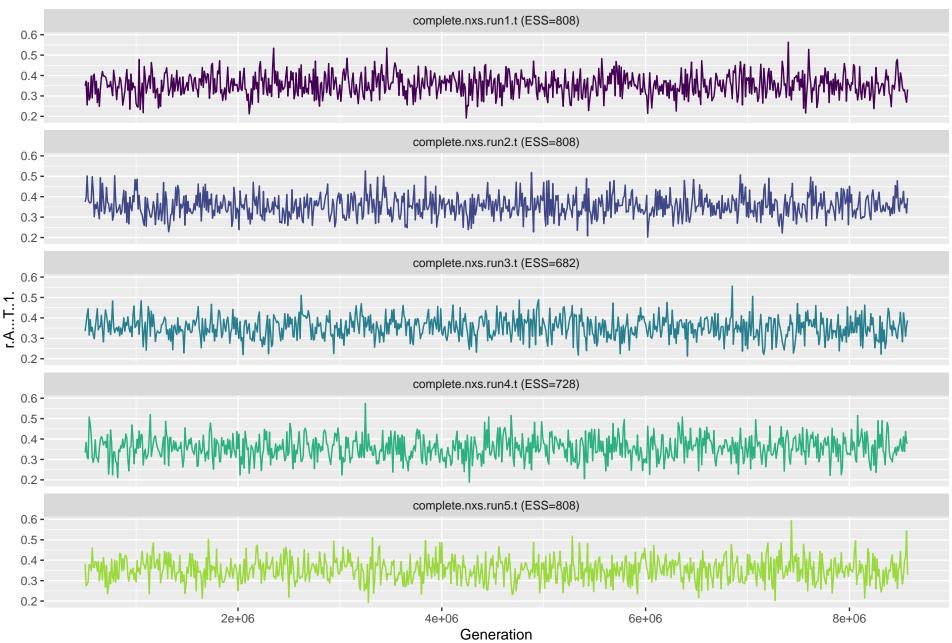


0.7 -0.6 -

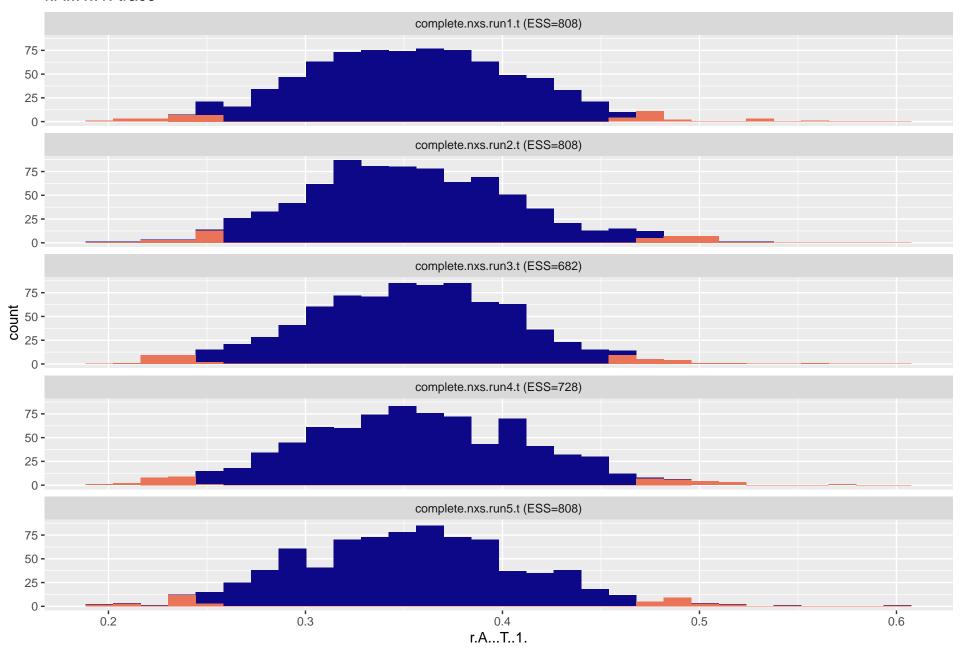
r.A...G..1. trace



r.A...T..1. trace



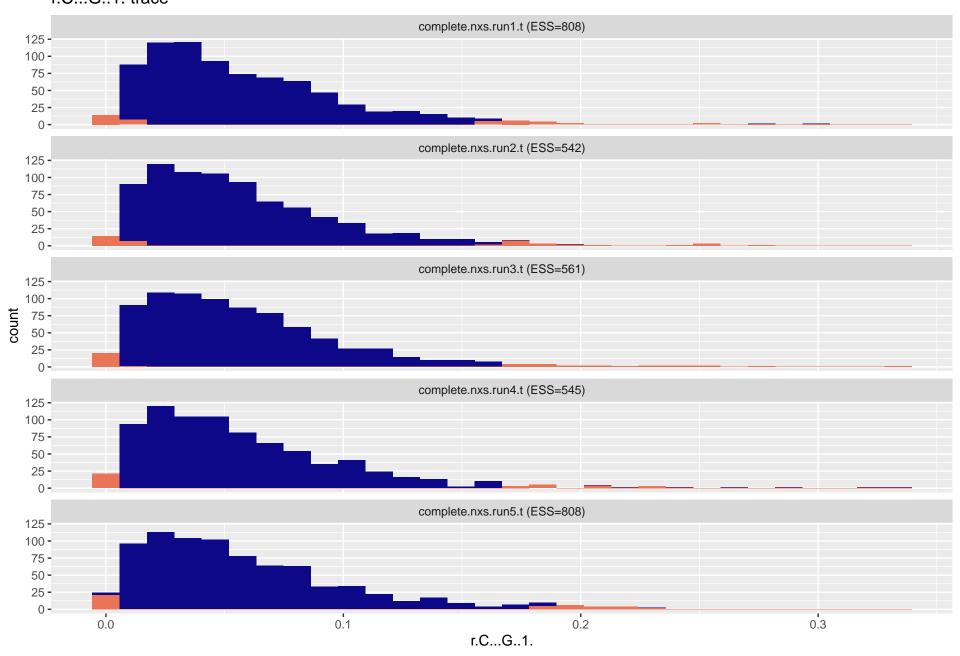
r.A...T..1. trace



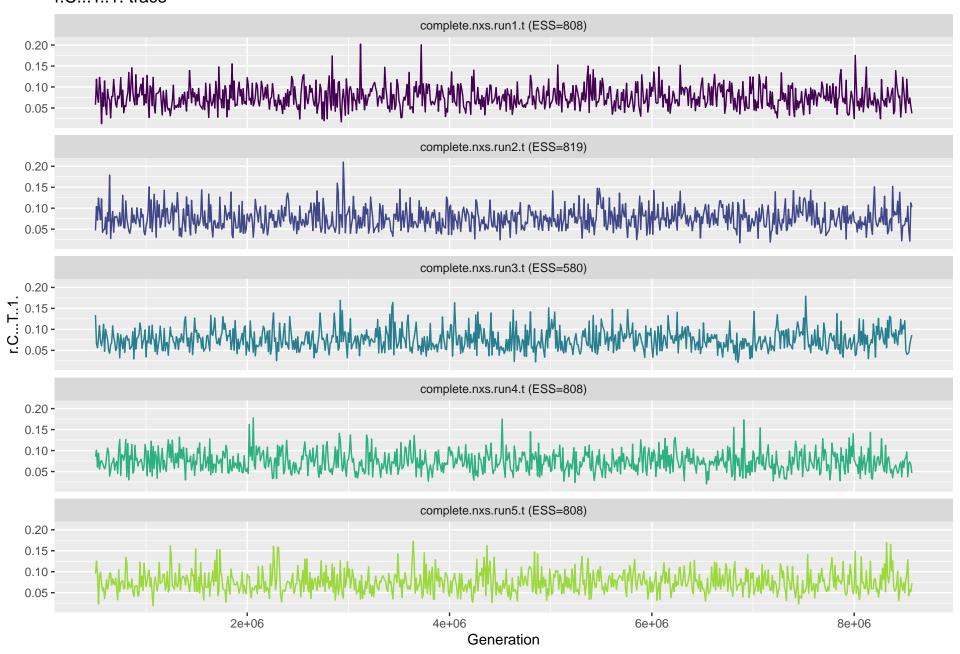
r.C...G..1. trace



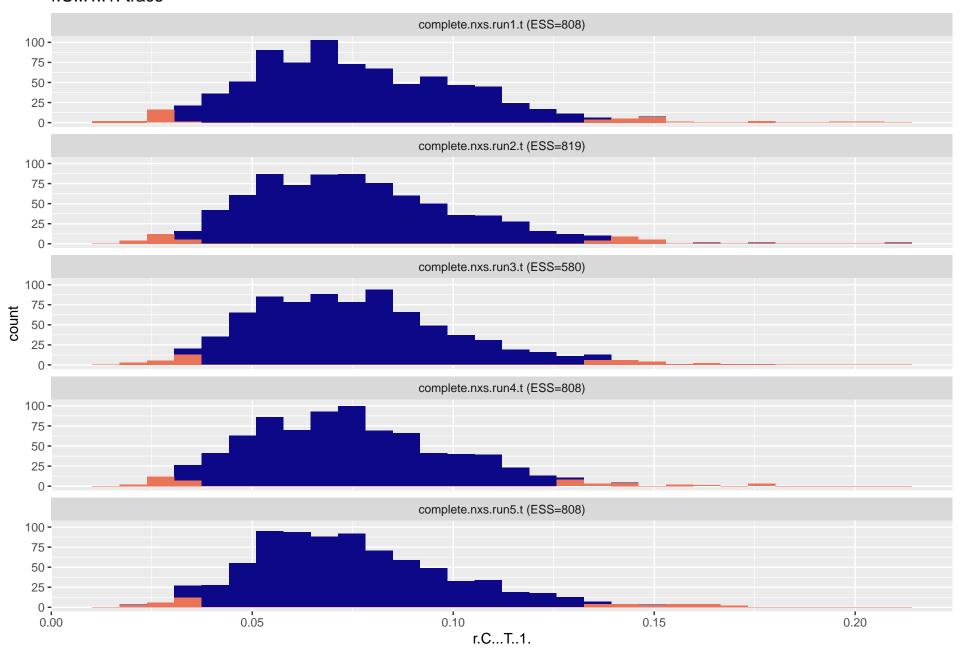
r.C...G..1. trace



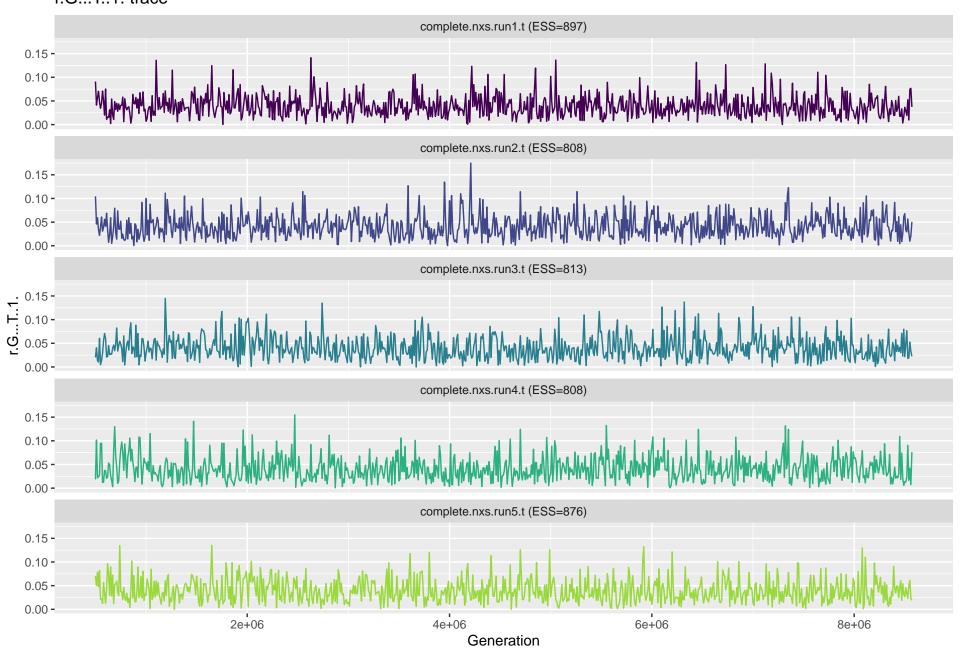
r.C...T..1. trace



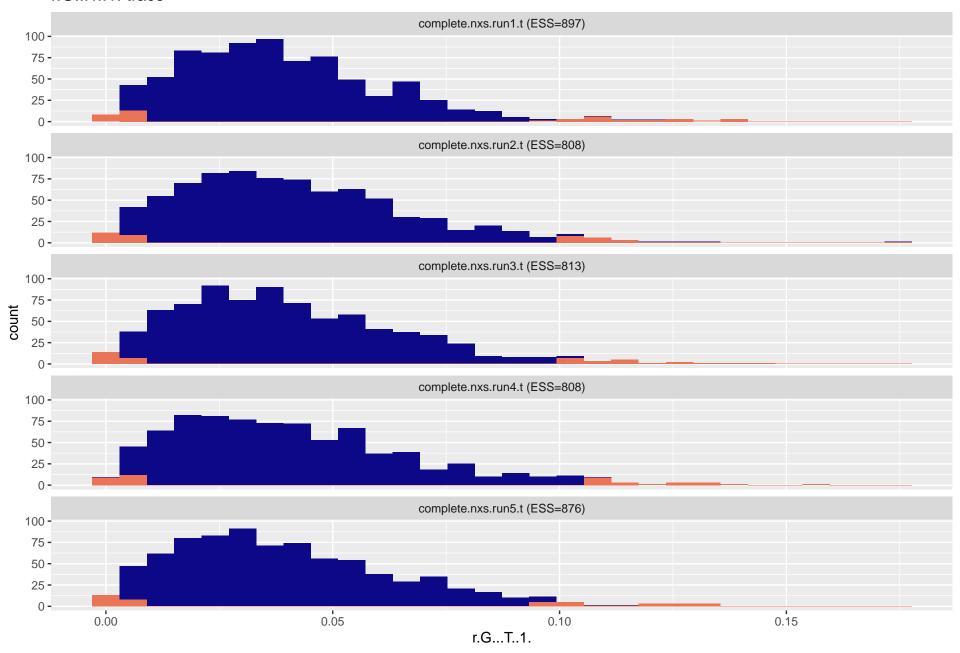
r.C...T..1. trace



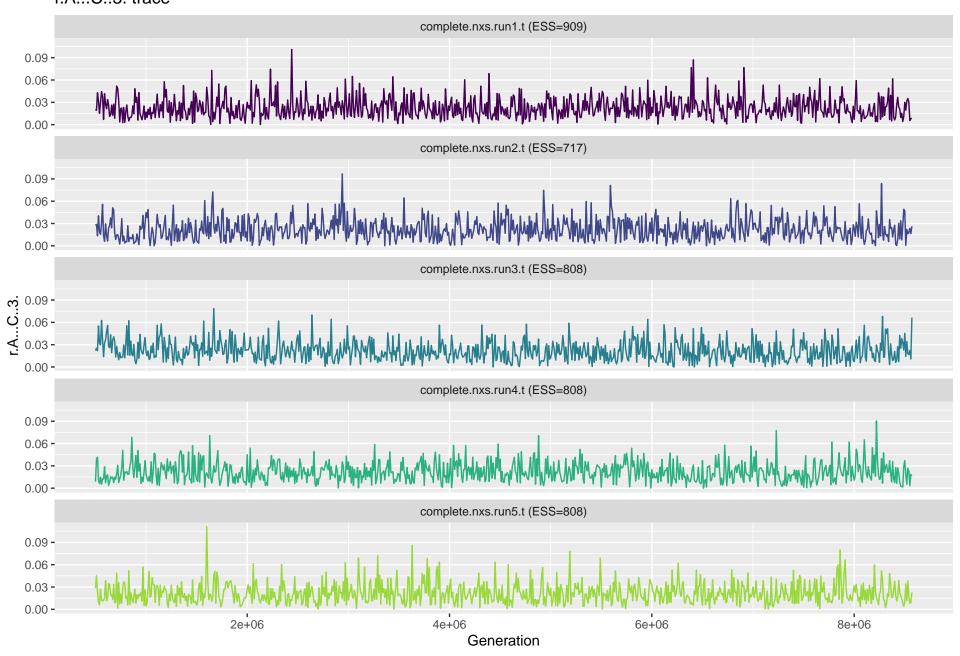
r.G...T..1. trace



r.G...T..1. trace

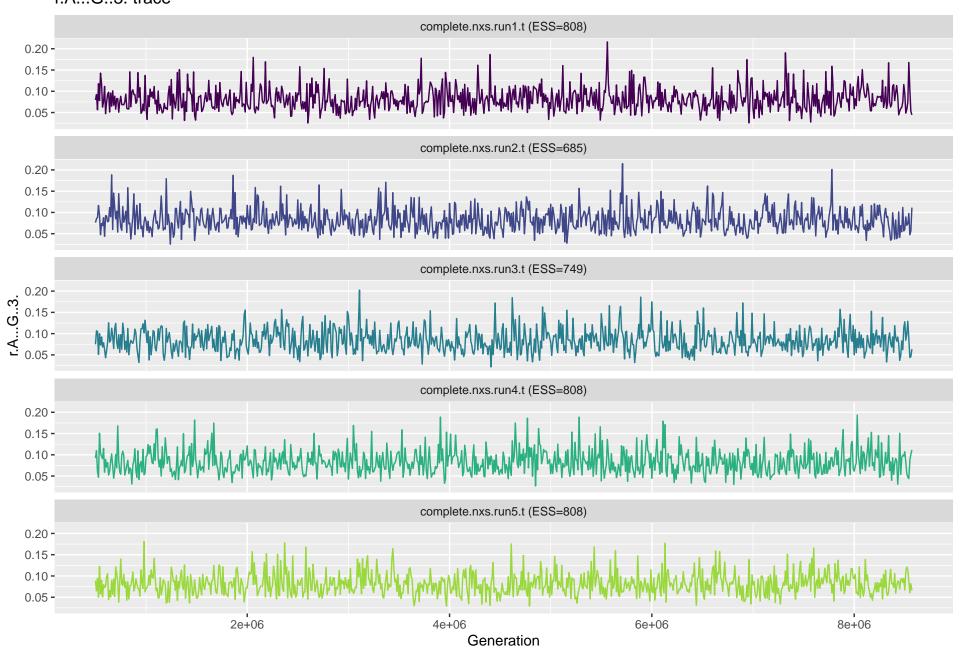


r.A...C..3. trace



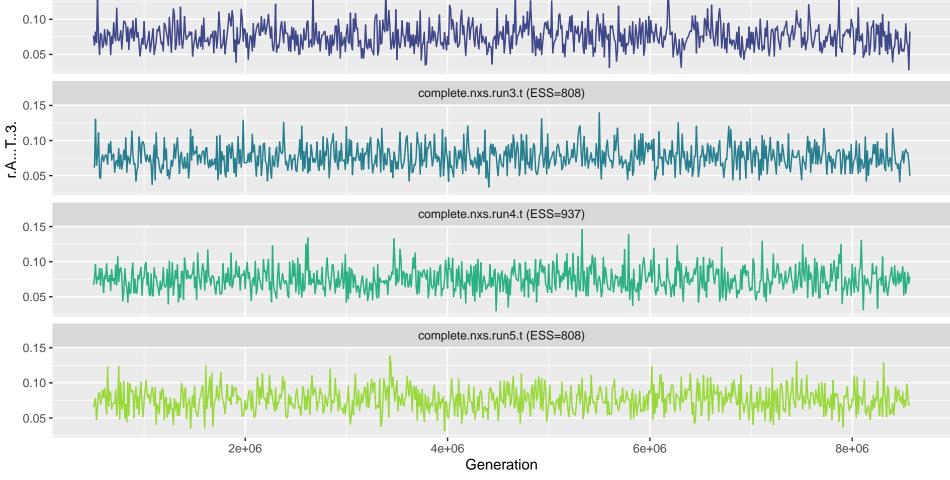
r.A...C..3. trace complete.nxs.run1.t (ESS=909) 120 **-**90 -60 -30 -0 complete.nxs.run2.t (ESS=717) 120 **-**90 -60 **-**30 -0 complete.nxs.run3.t (ESS=808) 120 -90 count 60 **-**30 -0 complete.nxs.run4.t (ESS=808) 120 -90 -60 **-**30 -0 complete.nxs.run5.t (ESS=808) 120 **-**90 -60 -30 -0 -0.06 r.A...C..3. 0.00 0.03 0.09

r.A...G..3. trace



r.A...G..3. trace complete.nxs.run1.t (ESS=808) 75 -50 -25 -0 complete.nxs.run2.t (ESS=685) 75 **-**50 -25 **-**0 complete.nxs.run3.t (ESS=749) 75 **-**75 -50 -25 -0 complete.nxs.run4.t (ESS=808) 75 **-**50 **-**25 -0 complete.nxs.run5.t (ESS=808) 75 **-**50 -25 **-**0 -0.05 0.10 0.20 0.15 r.A...G..3.

r.A...T..3. trace complete.nxs.run2.t (ESS=667) complete.nxs.run3.t (ESS=808) complete.nxs.run4.t (ESS=937) complete.nxs.run5.t (ESS=808)



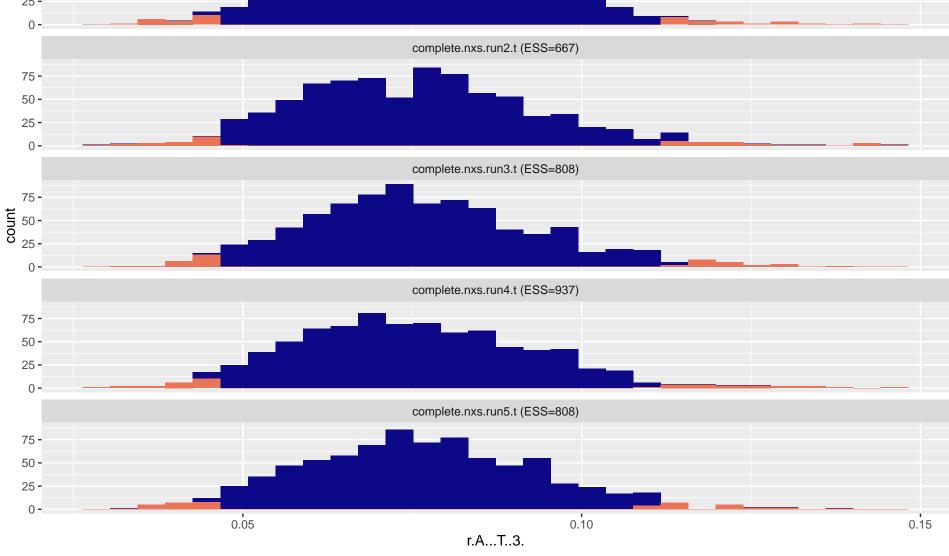
0.15 -

0.10 -

0.05 -

0.15 -

r.A...T..3. trace complete.nxs.run1.t (ESS=808) 75 **-**50 -25 -0 complete.nxs.run2.t (ESS=667) 0 complete.nxs.run3.t (ESS=808) 0 complete.nxs.run4.t (ESS=937) 0 -



r.C...G..3. trace

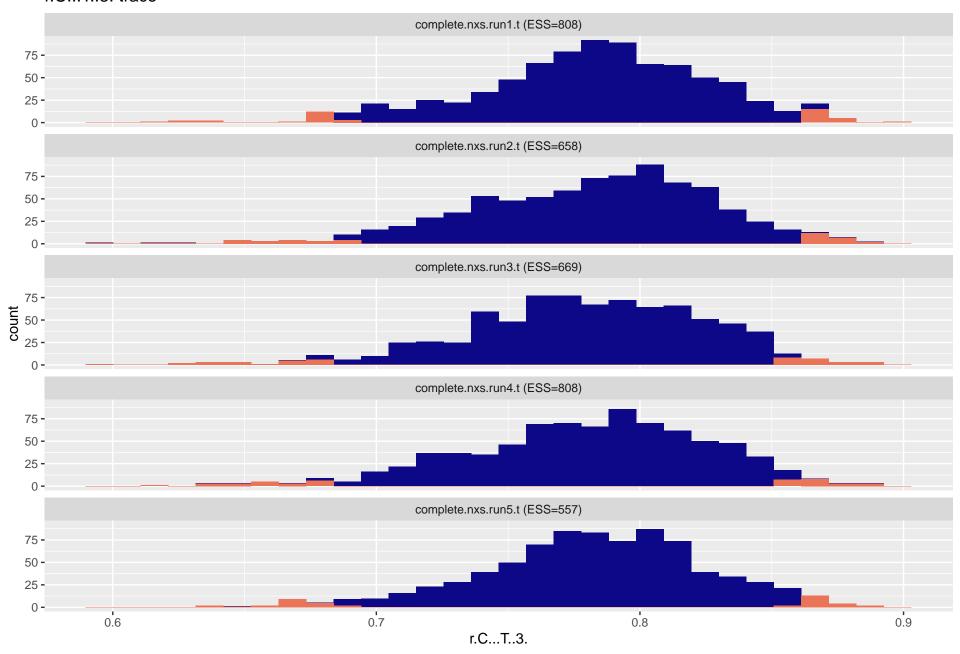


r.C...G..3. trace complete.nxs.run1.t (ESS=808) 200 -150 **-**100 -50 -0 complete.nxs.run2.t (ESS=808) 200 -150 **-**100 -50 -0 complete.nxs.run3.t (ESS=728) 200 -150 -100 -50 -0 complete.nxs.run4.t (ESS=808) 200 -150 **-**100 -50 **-**0 complete.nxs.run5.t (ESS=808) 200 -150 -100 -50 -0 -0.025 0.050 r.C...G..3. 0.000 0.075 0.100

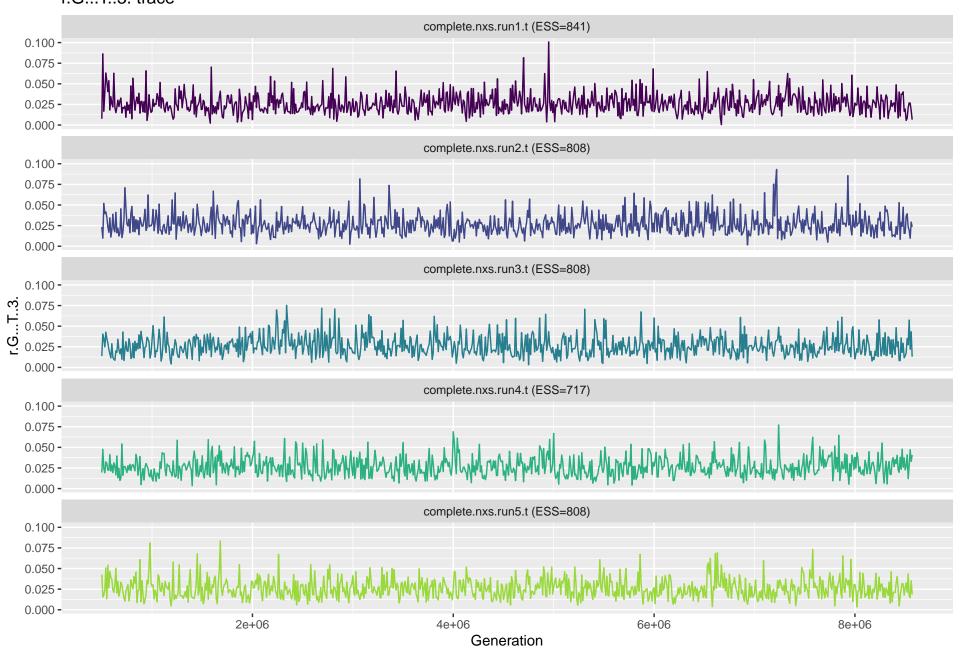
r.C...T..3. trace 0.9 -0.8 -0.7 -0.6 complete.nxs.run2.t (ESS=658) 0.9 -0.8 -0.7 -0.6 complete.nxs.run3.t (ESS=669) 0.9 -O.8 -0.6 complete.nxs.run4.t (ESS=808) 0.9 -0.8 -0.7 -0.6 complete.nxs.run5.t (ESS=557) 0.9 -0.8 -0.7 -0.6 -4e+06 6e+06 2e+06 8e+06

Generation

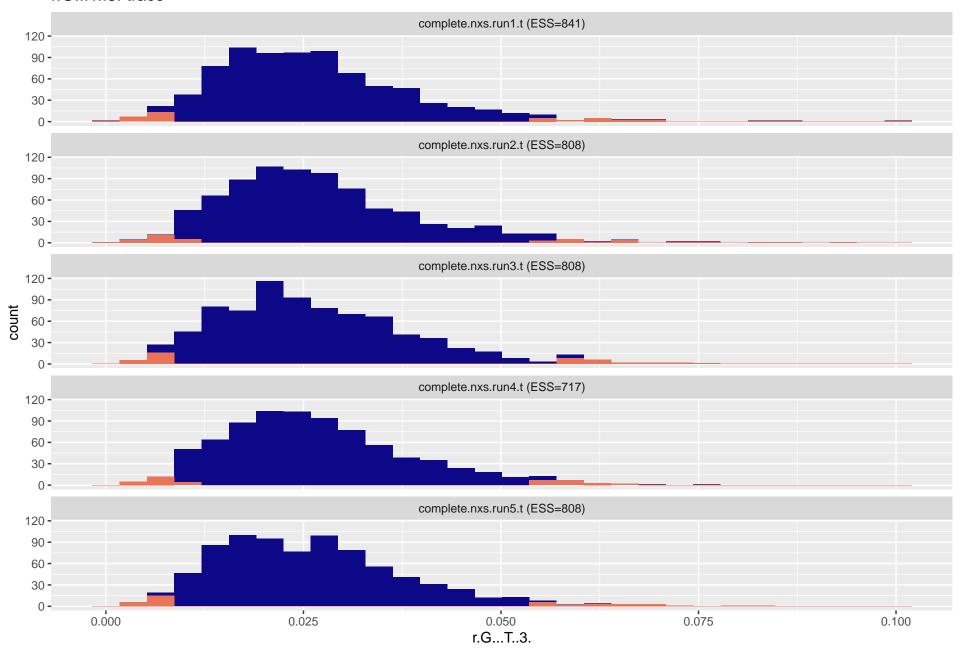
r.C...T..3. trace



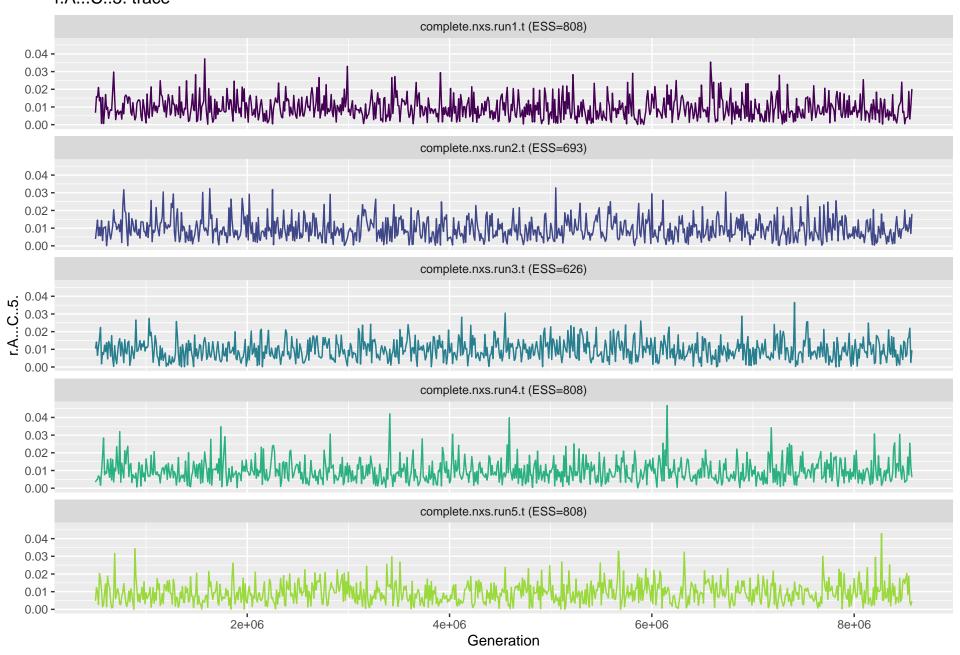
r.G...T..3. trace



r.G...T..3. trace

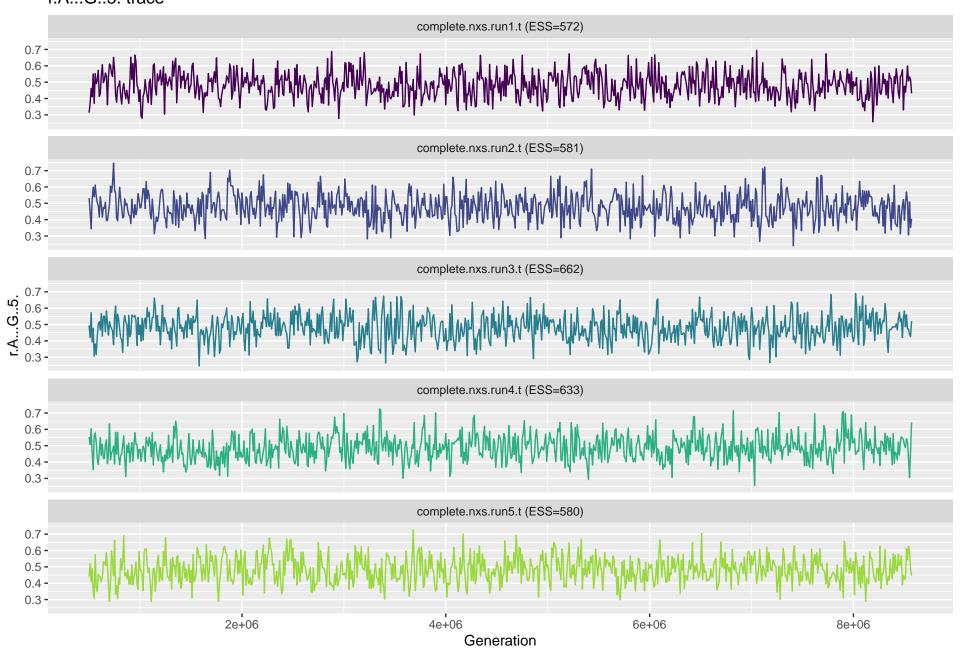


r.A...C..5. trace



r.A...C..5. trace complete.nxs.run1.t (ESS=808) 90 -60 **-**30 -0 complete.nxs.run2.t (ESS=693) 90 -60 -30 -0 complete.nxs.run3.t (ESS=626) 90 onti 60 -0 complete.nxs.run4.t (ESS=808) 90 -60 **-**30 -0 complete.nxs.run5.t (ESS=808) 90 -60 -30 -0 -0.00 0.01 0.04 0.02 0.03 r.A...C..5.

r.A...G..5. trace



r.A...G..5. trace complete.nxs.run1.t (ESS=572) 75 -50 -25 **-**0 complete.nxs.run2.t (ESS=581) 75 **-**50 -25 -0 complete.nxs.run3.t (ESS=662) 75 ontros ₅₀ -0 complete.nxs.run4.t (ESS=633) 75 **-**50 **-**25 -0 complete.nxs.run5.t (ESS=580) 75 **-**50 -25 **-**

0.5 r.A...G..5. 0.6

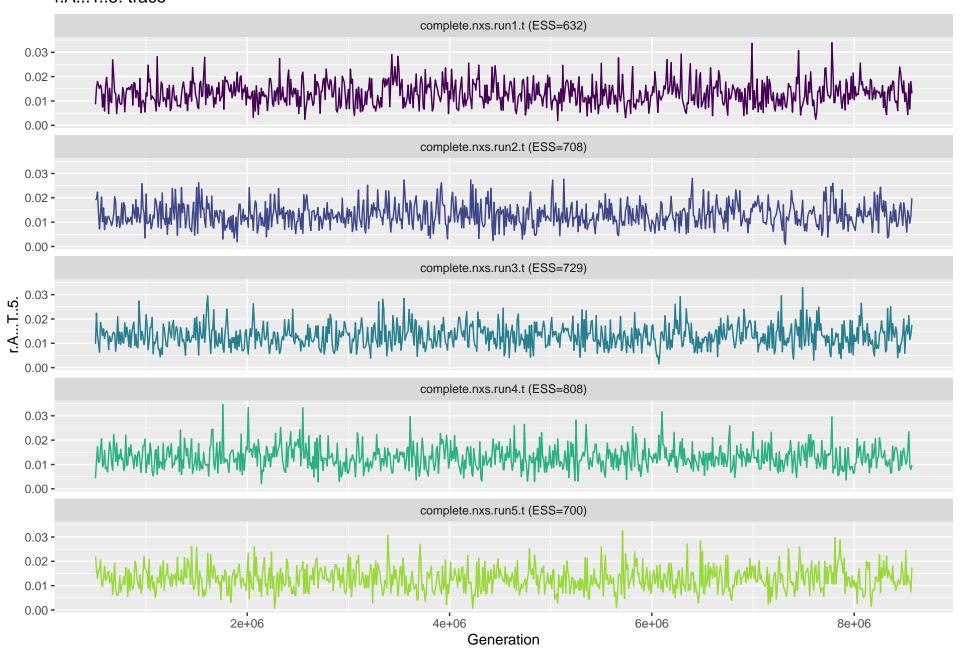
0.7

0.4

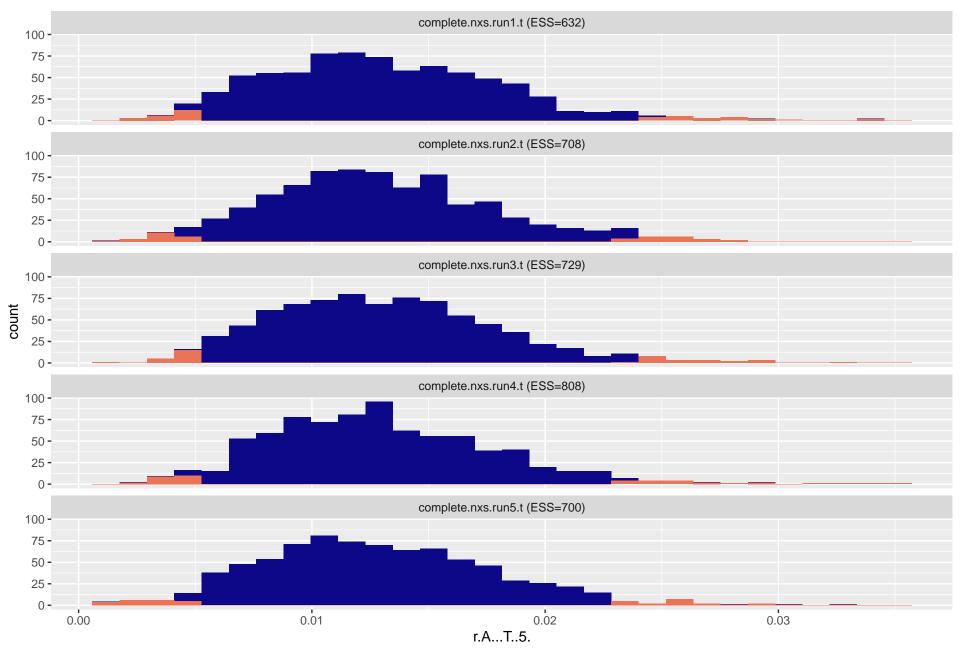
0 -

0.3

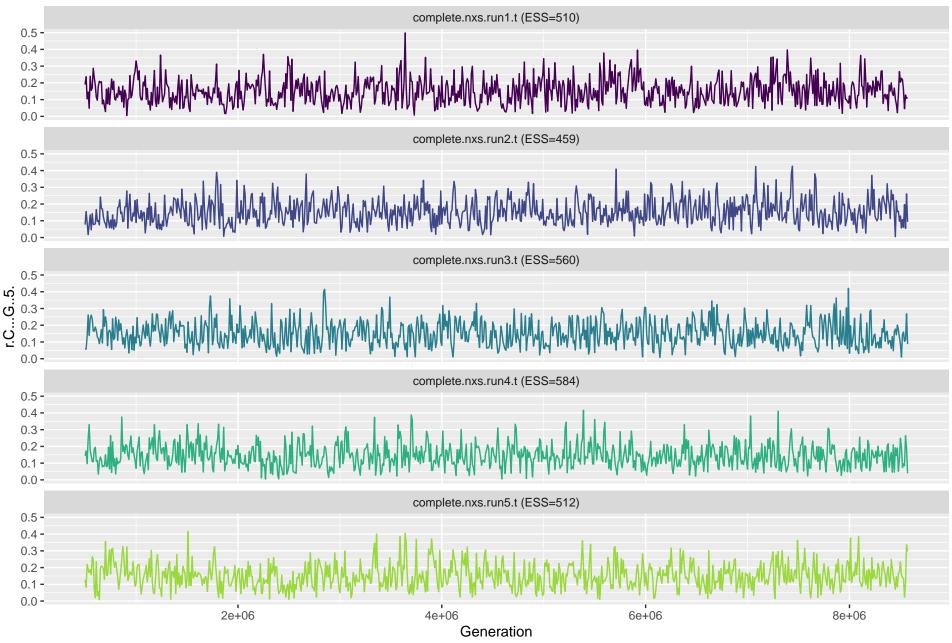
r.A...T..5. trace



r.A...T..5. trace

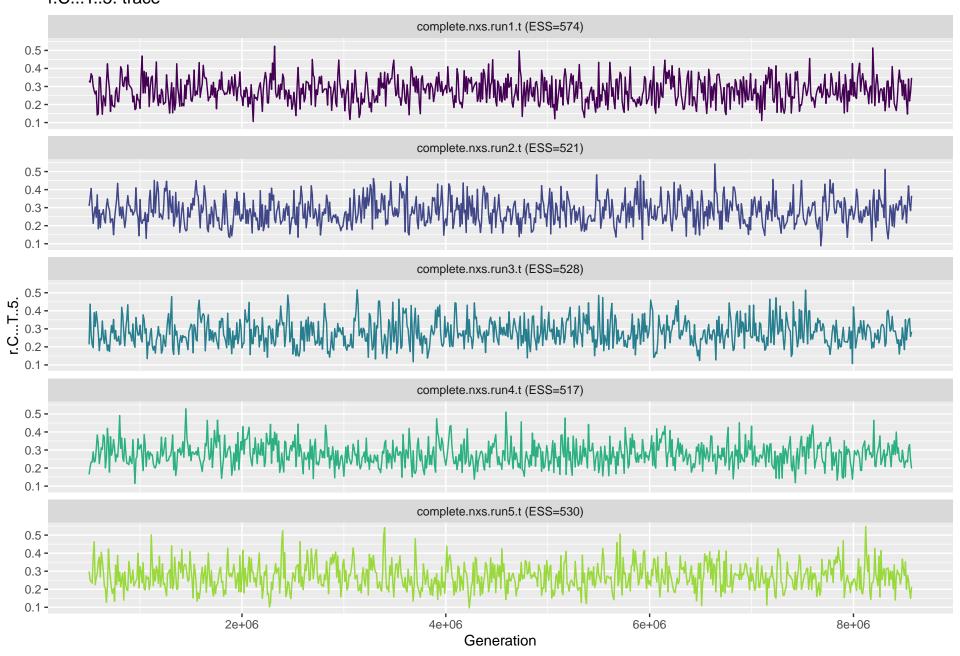


r.C...G..5. trace

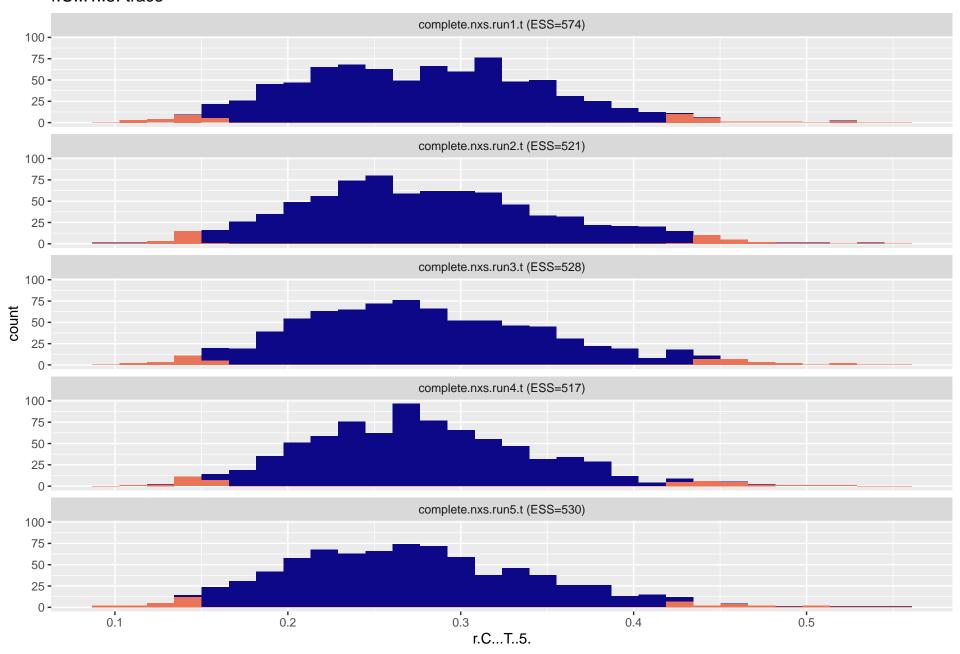


r.C...G..5. trace complete.nxs.run1.t (ESS=510) 75 **-**50 -25 -0 complete.nxs.run2.t (ESS=459) 75 **-**50 -25 -0 complete.nxs.run3.t (ESS=560) 75 ontros 50 - 25 -0 complete.nxs.run4.t (ESS=584) 75 **-**50 -25 -0 complete.nxs.run5.t (ESS=512) 75 -50 -25 **-**0 -0.0 0.1 0.2 0.3 0.4 0.5 r.C...G..5.

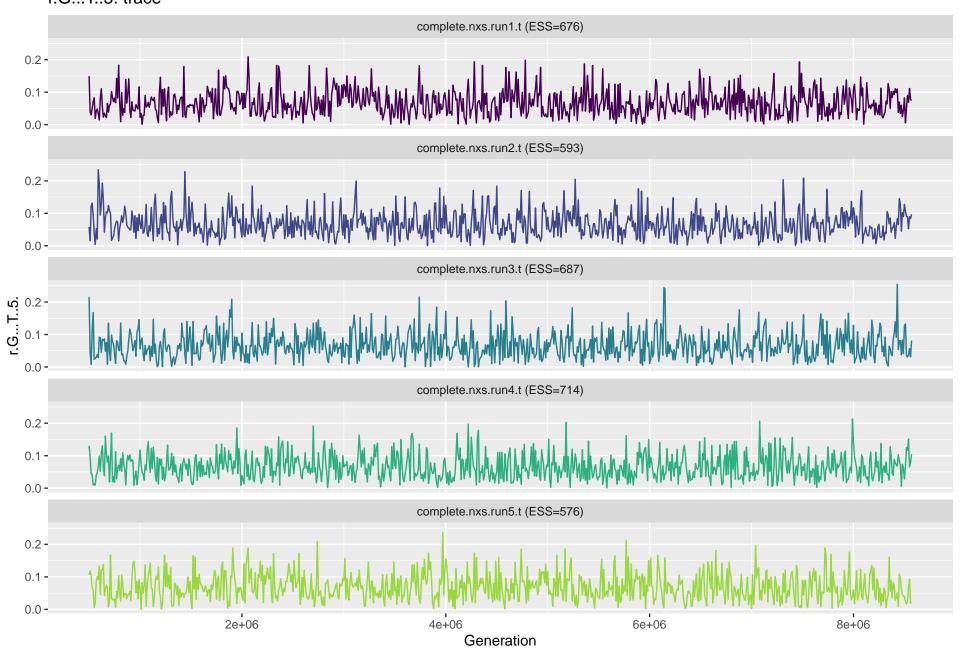
r.C...T..5. trace



r.C...T..5. trace

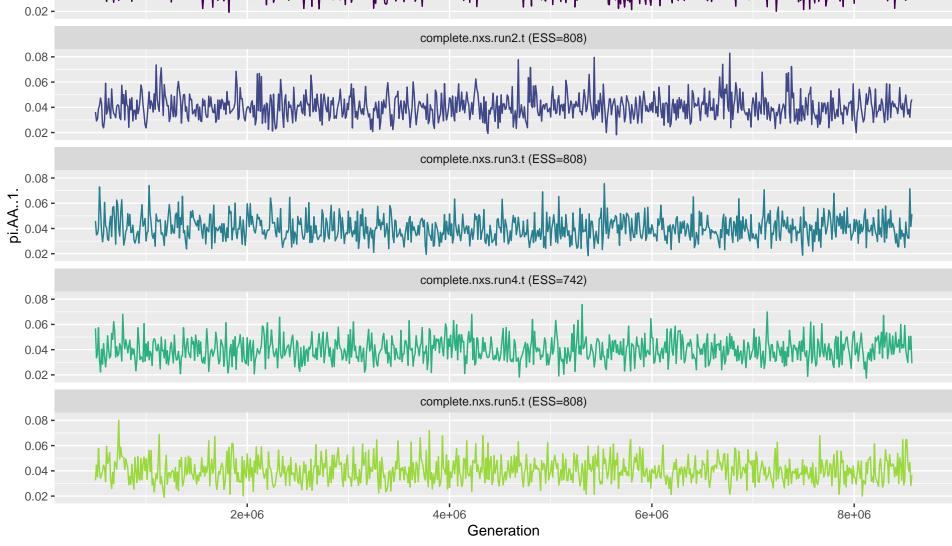


r.G...T..5. trace



r.G...T..5. trace complete.nxs.run1.t (ESS=676) 75 **-**50 **-**25 **-**0 complete.nxs.run2.t (ESS=593) 75 **-**50 -25 -0 complete.nxs.run3.t (ESS=687) 75 ont 50 -0 complete.nxs.run4.t (ESS=714) 75 **-**50 -25 -0 complete.nxs.run5.t (ESS=576) 75 **-**50 -25 -0 -0.1 0.0 0.2 r.G...T..5.

pi.AA..1. trace complete.nxs.run1.t (ESS=682) complete.nxs.run2.t (ESS=808) complete.nxs.run3.t (ESS=808) complete.nxs.run4.t (ESS=742)

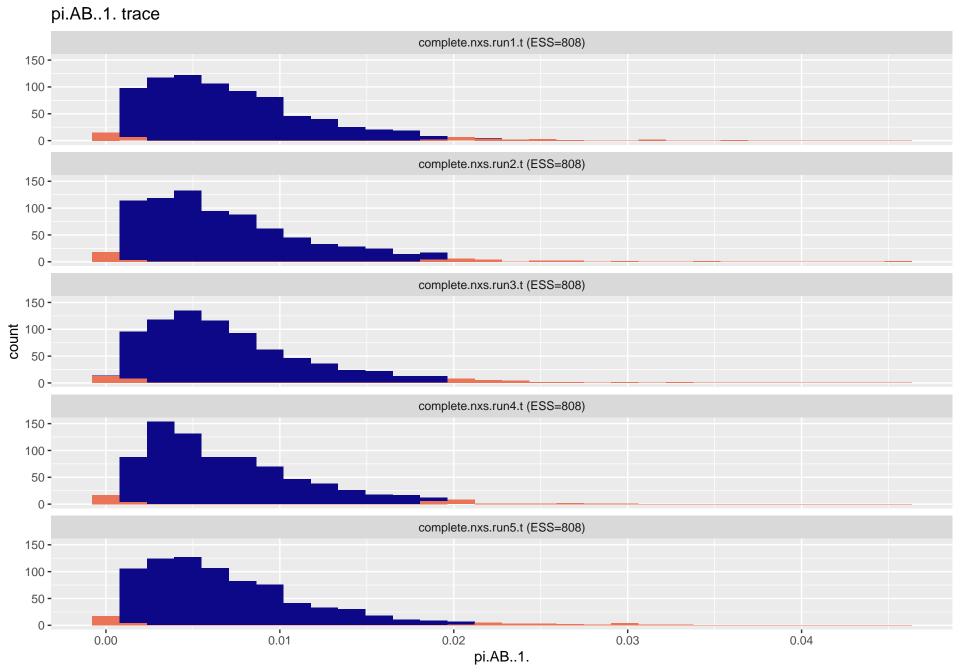


0.08 -0.06 -0.04 -

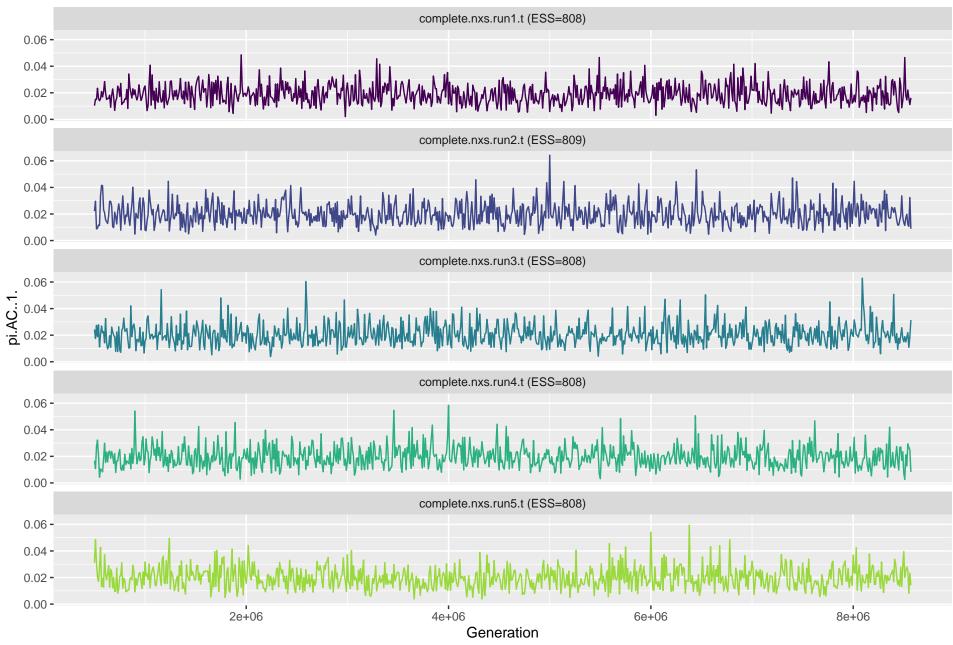
pi.AA..1. trace complete.nxs.run1.t (ESS=682) 100 -75 **-**50 **-**25 -0 complete.nxs.run2.t (ESS=808) 100 -75 -50 -25 -0 complete.nxs.run3.t (ESS=808) 100 -75 count 50 **-**25 -0 complete.nxs.run4.t (ESS=742) 100 -75 **-**50 -25 -0 complete.nxs.run5.t (ESS=808) 100 -75 **-**50 -25 -0 -0.03 0.05 0.07 pi.AA..1.

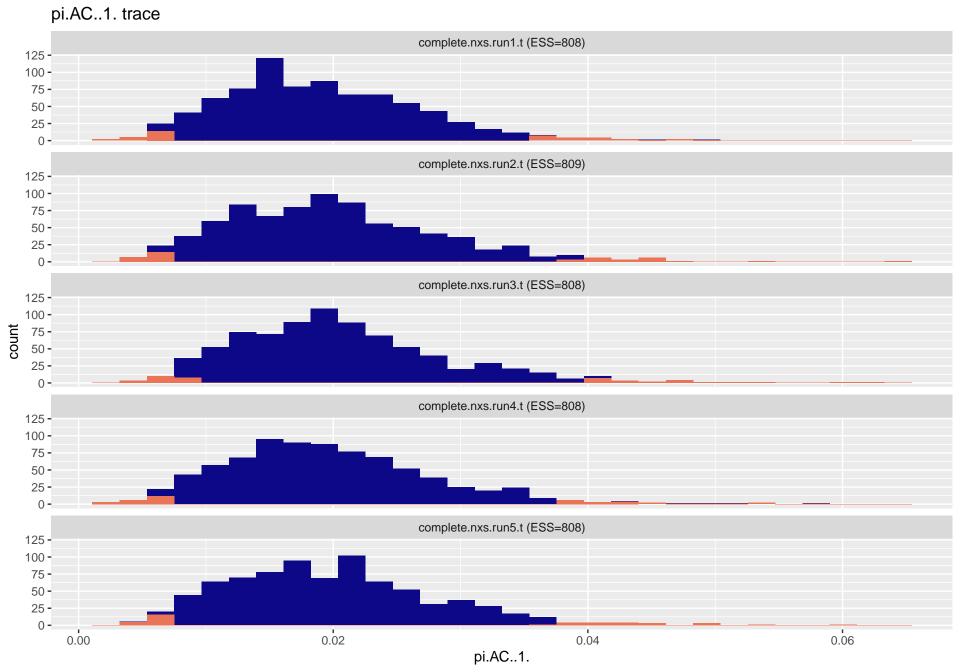
pi.AB..1. trace





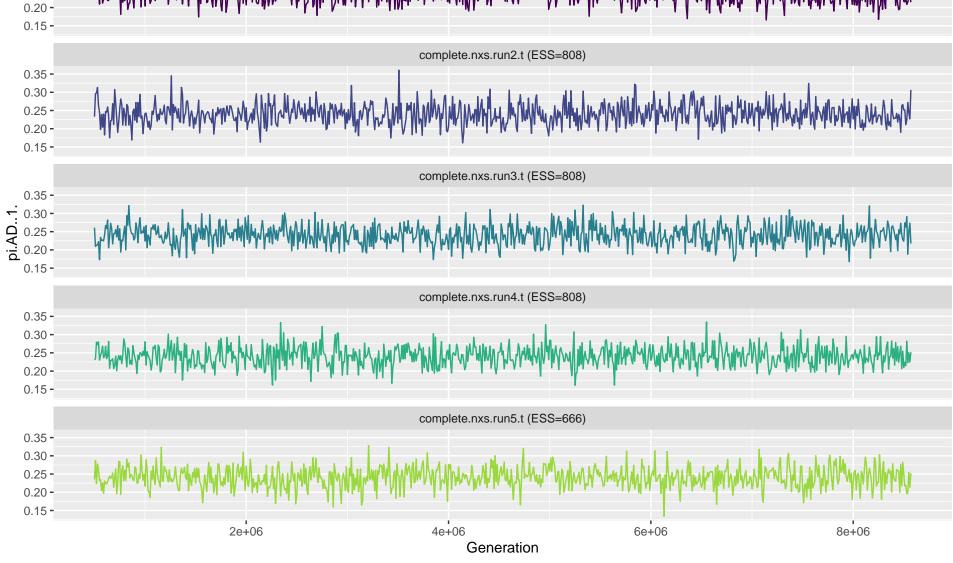
pi.AC..1. trace

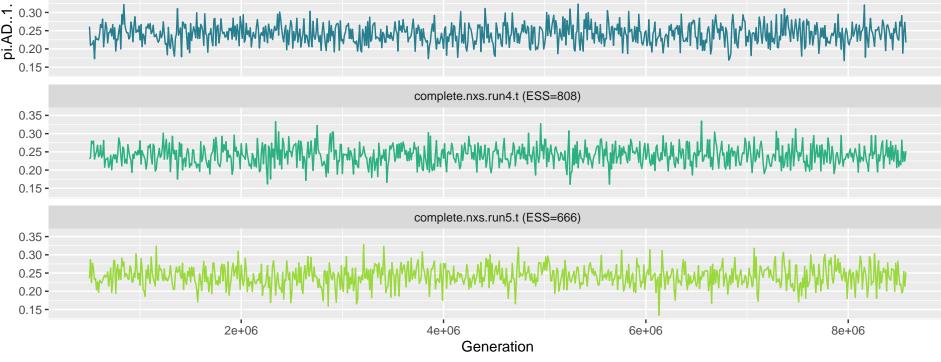


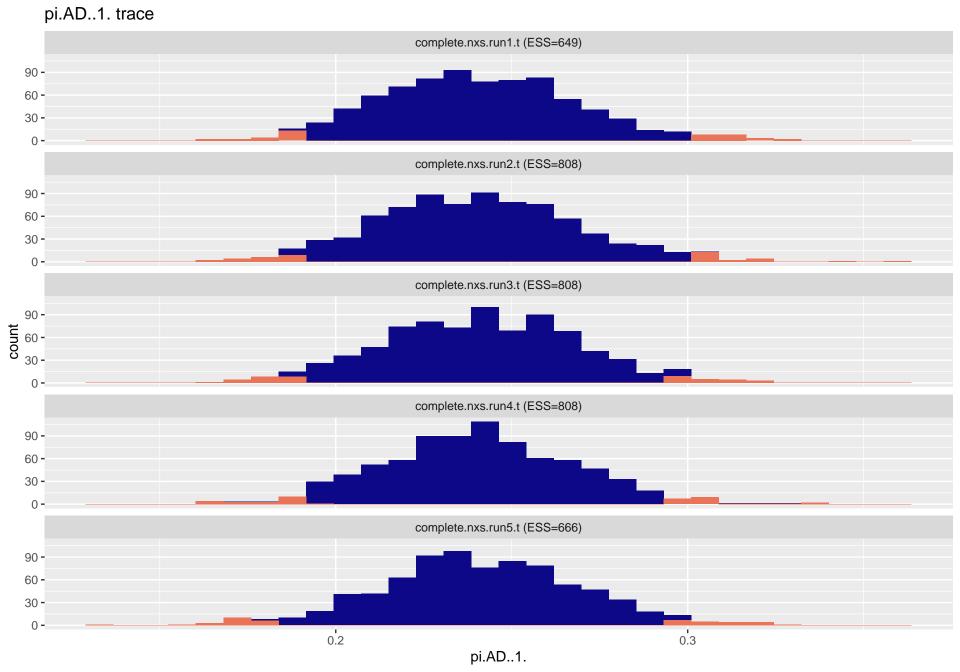


pi.AD..1. trace complete.nxs.run1.t (ESS=649) complete.nxs.run2.t (ESS=808) complete.nxs.run3.t (ESS=808) complete.nxs.run4.t (ESS=808)

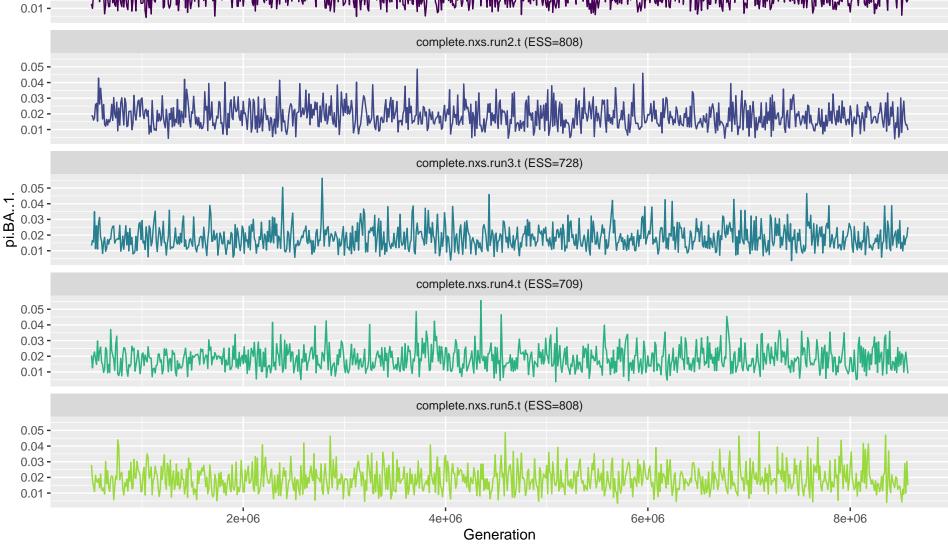
0.35 -0.30 -0.25 -



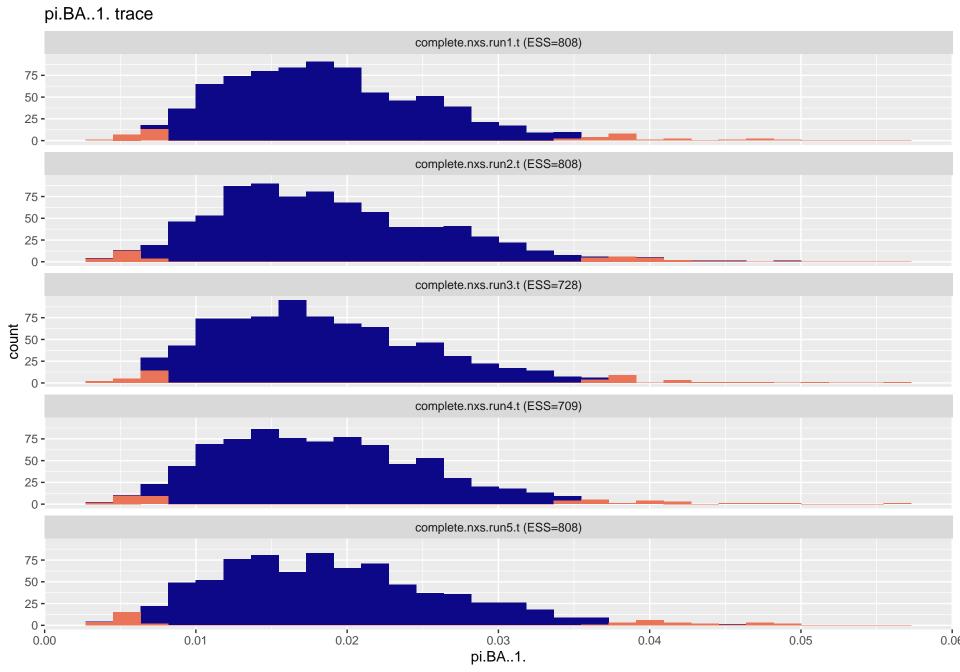




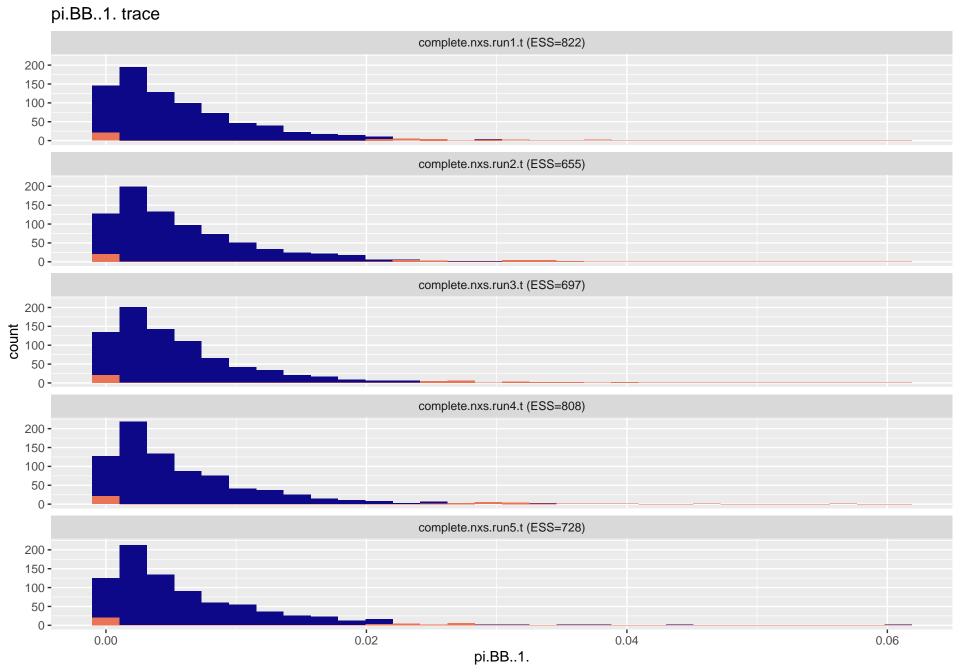
pi.BA..1. trace complete.nxs.run1.t (ESS=808) complete.nxs.run2.t (ESS=808) complete.nxs.run3.t (ESS=728) complete.nxs.run4.t (ESS=709) complete.nxs.run5.t (ESS=808)



0.05 -0.04 -0.03 -0.02 -

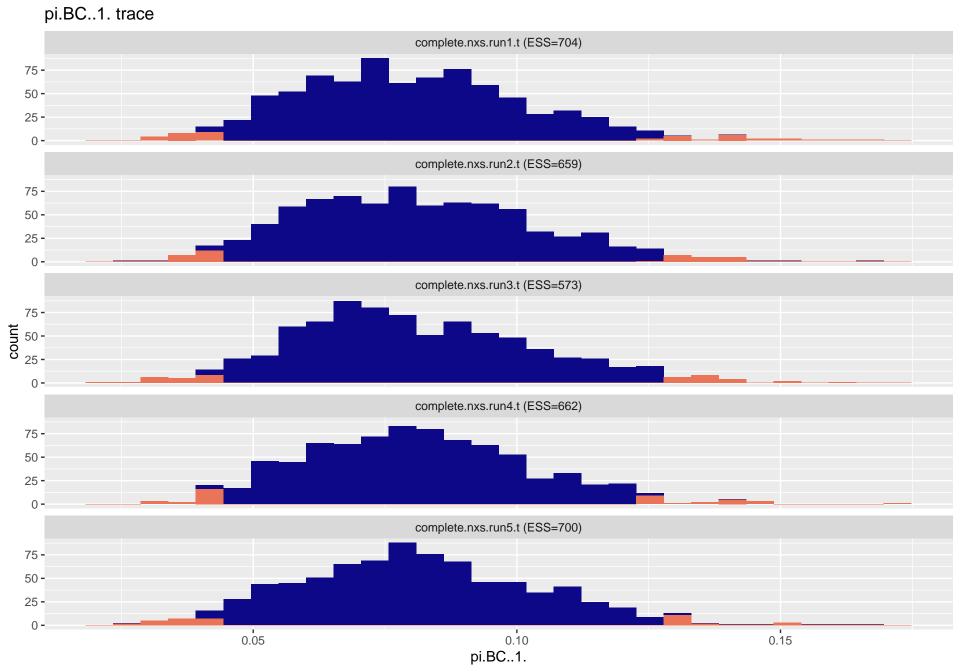


pi.BB..1. trace complete.nxs.run1.t (ESS=822) 0.06 -0.04 -0.02 -0.00 complete.nxs.run2.t (ESS=655) 0.06 -0.04 -0.02 -0.00 complete.nxs.run3.t (ESS=697) 0.06 -0.04 -0.02 -0.00 complete.nxs.run4.t (ESS=808) 0.06 -0.04 -0.02 -0.00 complete.nxs.run5.t (ESS=728) 0.06 -0.04 -0.02 -0.00 -4e+06 2e+06 6e+06 8e+06 Generation



pi.BC..1. trace complete.nxs.run1.t (ESS=704) 0.15 -0.10 -0.05 complete.nxs.run2.t (ESS=659) 0.15 **-**0.10 -0.05 complete.nxs.run3.t (ESS=573) 0.15 -E 0.10 -0.05 complete.nxs.run4.t (ESS=662) 0.15 **-**0.10 -0.05 complete.nxs.run5.t (ESS=700) 0.15 -0.10 -0.05 -4e+06

Generation



pi.BD..1. trace complete.nxs.run1.t (ESS=684) 0.06 -0.04 -0.02 -0.00 complete.nxs.run2.t (ESS=808) 0.06 -0.04 -0.02 -0.00 complete.nxs.run3.t (ESS=627) 0.06 -1: 0.04 -0.02 -0.00 complete.nxs.run4.t (ESS=808) 0.06 -0.04 -0.02 -0.00 complete.nxs.run5.t (ESS=960) 0.06 -0.04 -0.02 -

4e+06

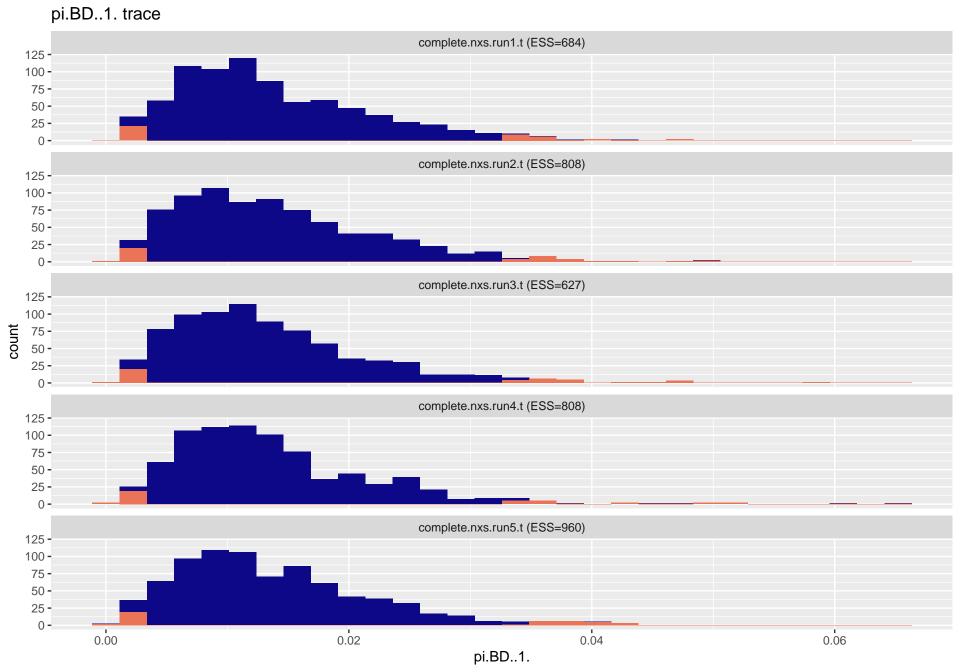
Generation

6e+06

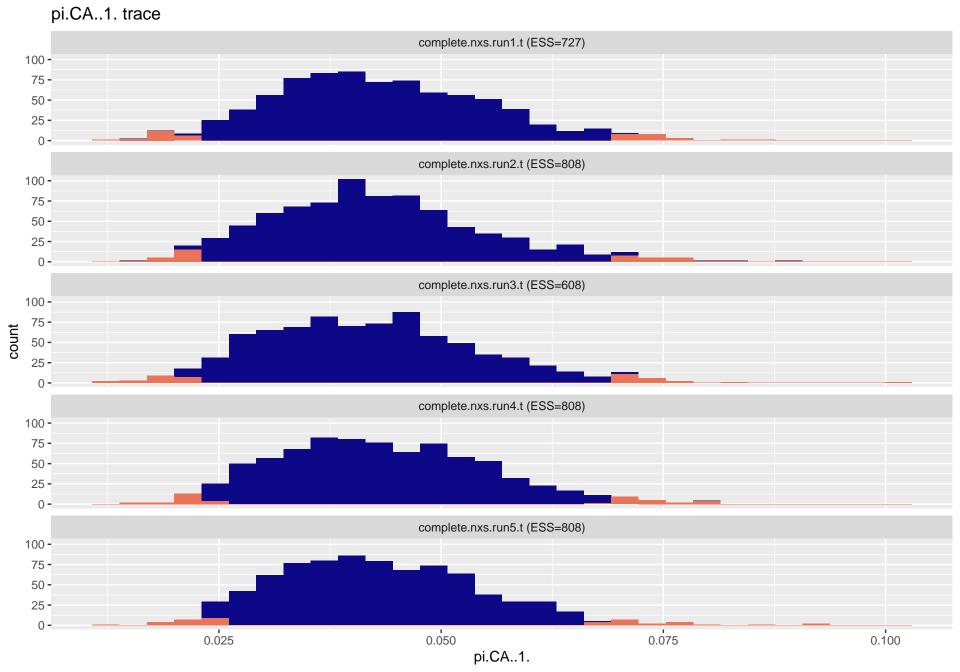
8e+06

2e+06

0.00 -



pi.CA..1. trace complete.nxs.run1.t (ESS=727) 0.100 -0.075 -0.050 -0.025 complete.nxs.run2.t (ESS=808) 0.100 -0.075 -0.050 -0.025 complete.nxs.run3.t (ESS=608) 0.100 -O.075 -O.050 -O.025 complete.nxs.run4.t (ESS=808) 0.100 -0.075 -0.050 -0.025 complete.nxs.run5.t (ESS=808) 0.100 -0.075 -0.050 -0.025 -4e+06 2e+06 6e+06 8e+06 Generation

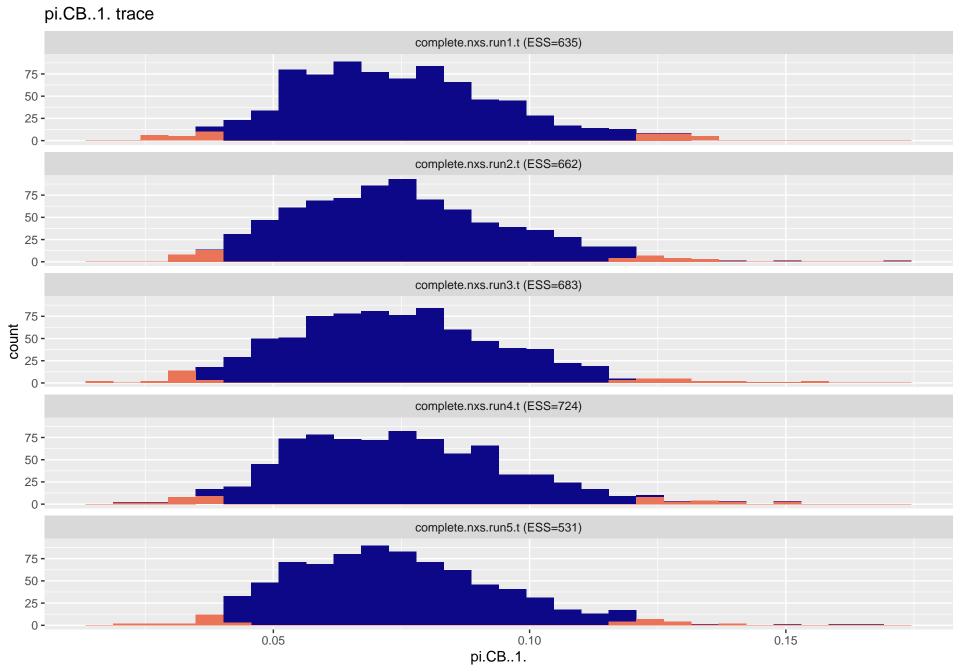


pi.CB..1. trace complete.nxs.run1.t (ESS=635) 0.15 -0.10 -0.05 complete.nxs.run2.t (ESS=662) 0.15 -0.10 -0.05 complete.nxs.run3.t (ESS=683) O.15 -O.10 -O.05 complete.nxs.run4.t (ESS=724) 0.15 -0.10 -0.05 complete.nxs.run5.t (ESS=531) 0.15 **-**0.10 -0.05 -

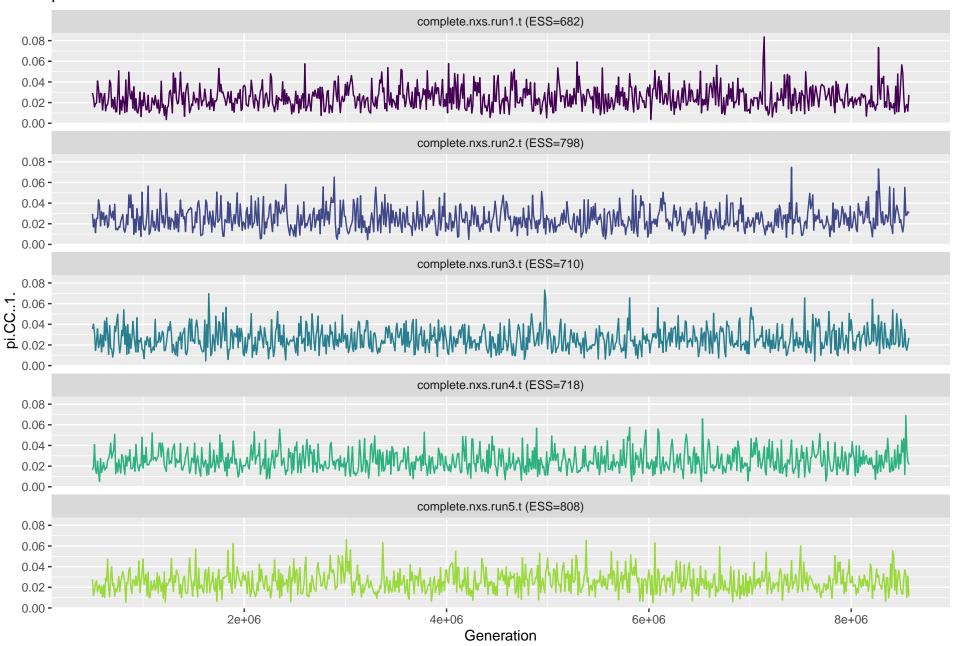
4e+06

Generation

2e+06



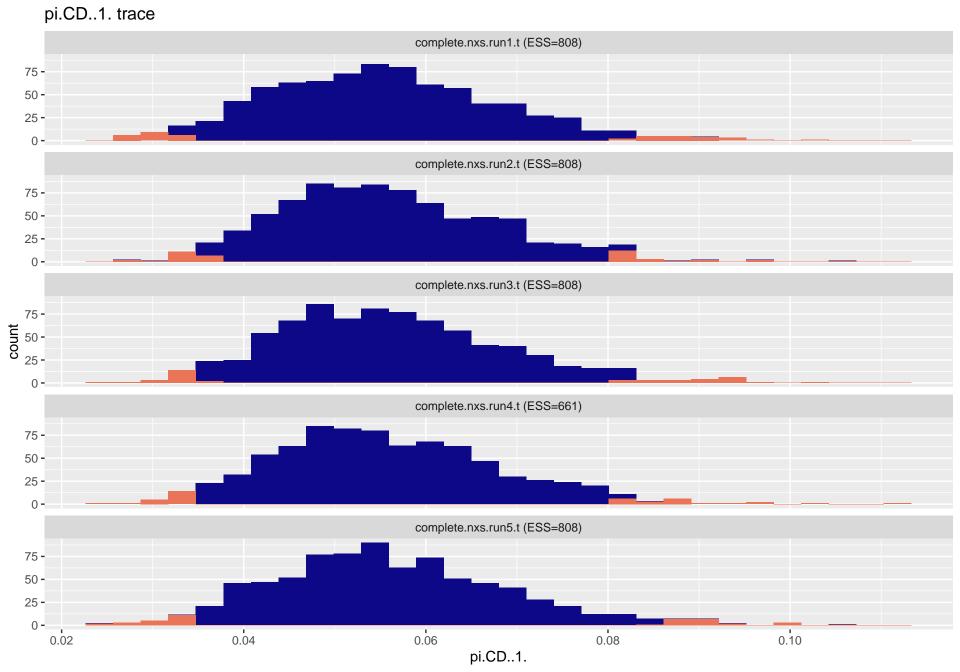
pi.CC..1. trace



pi.CC..1. trace complete.nxs.run1.t (ESS=682) 100 -75 **-**50 -25 **-**0 complete.nxs.run2.t (ESS=798) 100 -75 **-**50 **-**25 **-**0 complete.nxs.run3.t (ESS=710) 100 -75 count 50 -25 -0 complete.nxs.run4.t (ESS=718) 100 -75 **-**50 -25 -0 complete.nxs.run5.t (ESS=808) 100 -75 **-**50 -25 **-**0 -0.02 0.04 pi.CC..1. 0.06 0.08 0.00

pi.CD..1. trace complete.nxs.run1.t (ESS=808) 0.10 -0.08 -0.06 -0.04 complete.nxs.run2.t (ESS=808) 0.10 -0.08 -0.06 -0.04 complete.nxs.run3.t (ESS=808) D: 0.10 - 0.08 - 0.06 - 0.04 complete.nxs.run4.t (ESS=661) 0.10 -0.08 -0.06 -0.04 complete.nxs.run5.t (ESS=808) 0.10 -0.08 -0.06 -0.04 -4e+06

Generation



pi.DA..1. trace complete.nxs.run1.t (ESS=658) 0.40 -0.35 -0.30 -0.25 -0.20 complete.nxs.run2.t (ESS=1417) 0.40 -0.35 -0.30 -0.25 -0.20 complete.nxs.run3.t (ESS=648) 0.40 -O.35 - 0.30 - 0.25 - 0.20 -0.20 complete.nxs.run4.t (ESS=690) 0.40 -0.35 -0.30 -0.25 -0.20 complete.nxs.run5.t (ESS=808) 0.40 -0.35 -0.30 -0.25 -0.20 -2e+06 4e+06 6e+06 8e+06 Generation

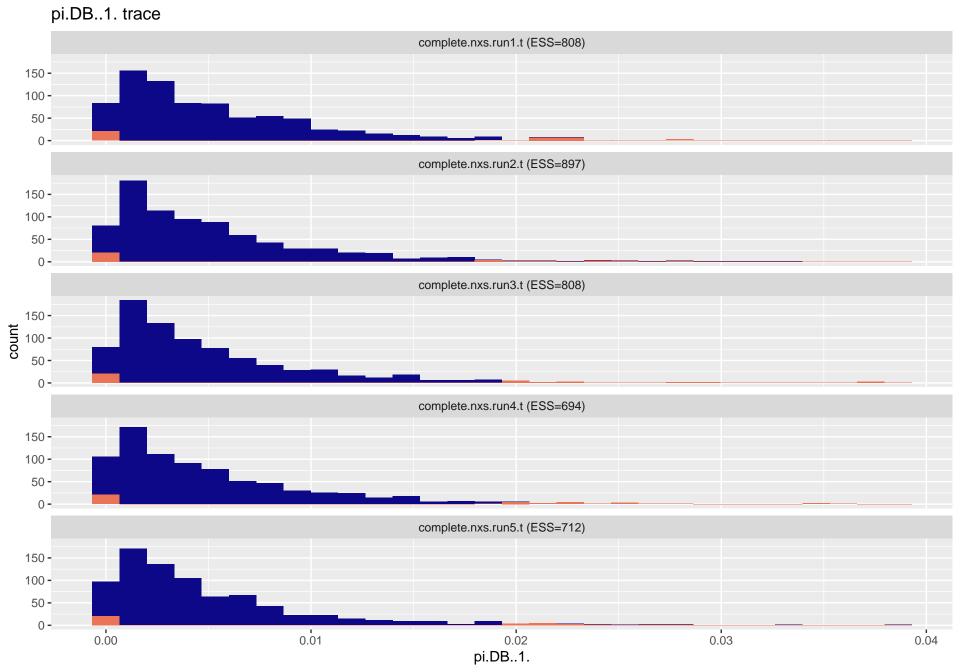
pi.DA..1. trace complete.nxs.run1.t (ESS=658) 100 -75 **-**50 -25 -0 complete.nxs.run2.t (ESS=1417) 100 -75 **-**50 -25 -0 complete.nxs.run3.t (ESS=648) 100 -75 count 50 **-**25 -0 complete.nxs.run4.t (ESS=690) 100 -75 **-**50 **-**25 -0 complete.nxs.run5.t (ESS=808) 100 -75 **-**50 -25 -0 -0.20 0.25 0.30 0.35 0.40 pi.DA..1.

pi.DB..1. trace complete.nxs.run1.t (ESS=808) 0.04 -0.03 -0.02 -0.01 -0.00 complete.nxs.run2.t (ESS=897) 0.04 -0.03 -0.02 -0.01 -0.00 complete.nxs.run3.t (ESS=808) 0.04 -← 0.03 -0.02 -0.01 -0.00 complete.nxs.run4.t (ESS=694) 0.04 -0.03 -0.02 -0.01 -0.00 complete.nxs.run5.t (ESS=712) 0.04 -0.03 -0.02 -0.01 -

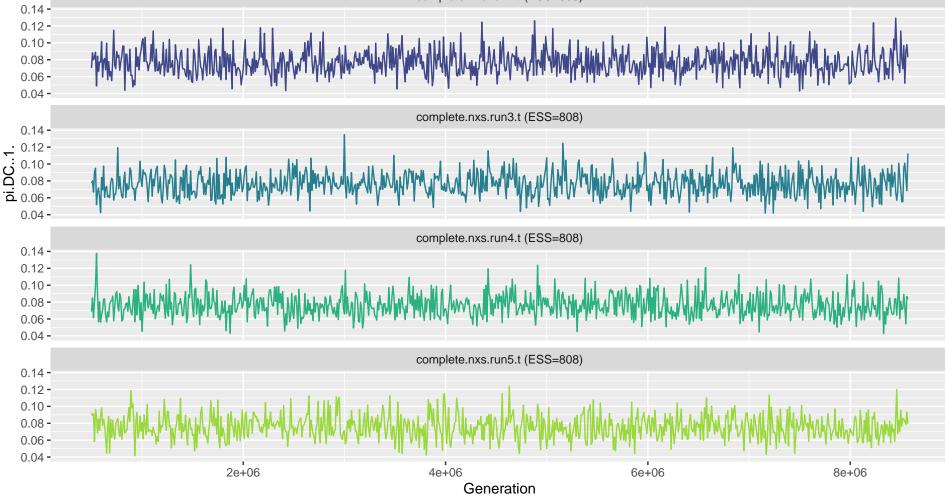
0.00 -

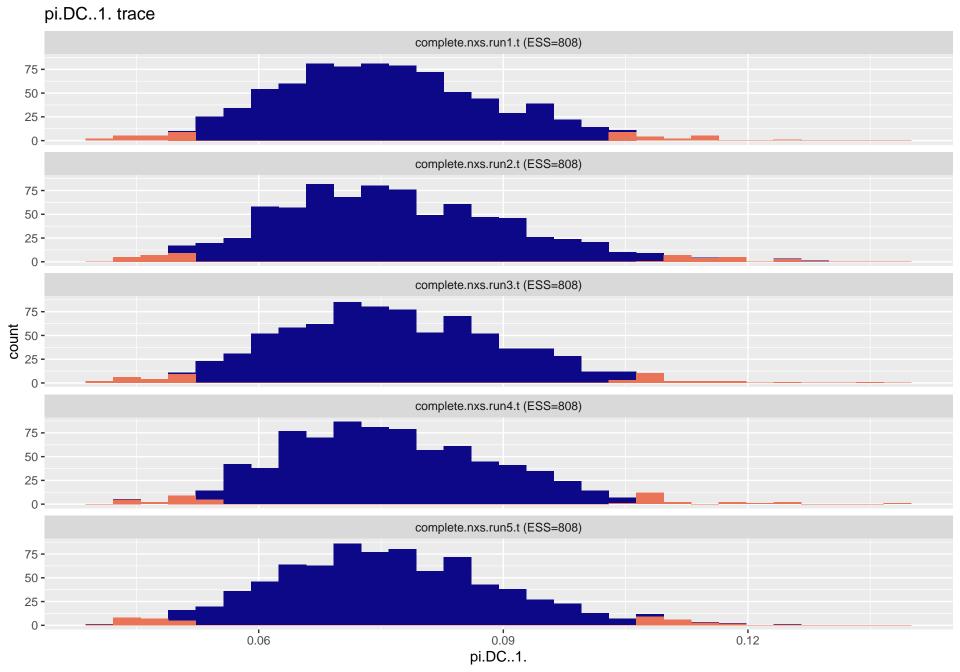
2e+06

4e+06 6e+06 8e+06 Generation

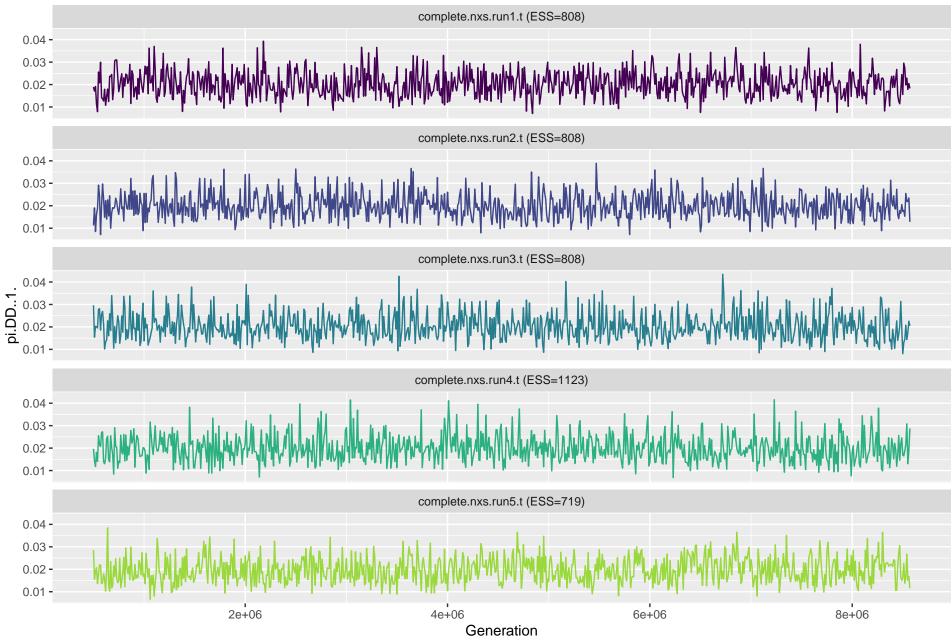


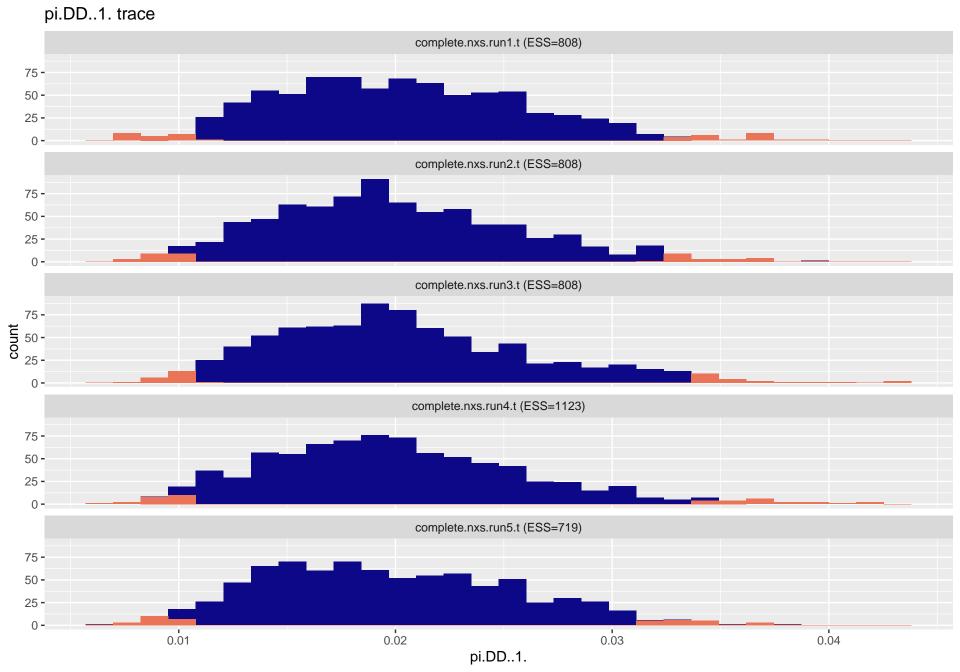
pi.DC..1. trace complete.nxs.run1.t (ESS=808) 0.14 -0.12 -0.10 -0.08 -0.06 -0.04 complete.nxs.run2.t (ESS=808) complete.nxs.run3.t (ESS=808) complete.nxs.run4.t (ESS=808) complete.nxs.run5.t (ESS=808)

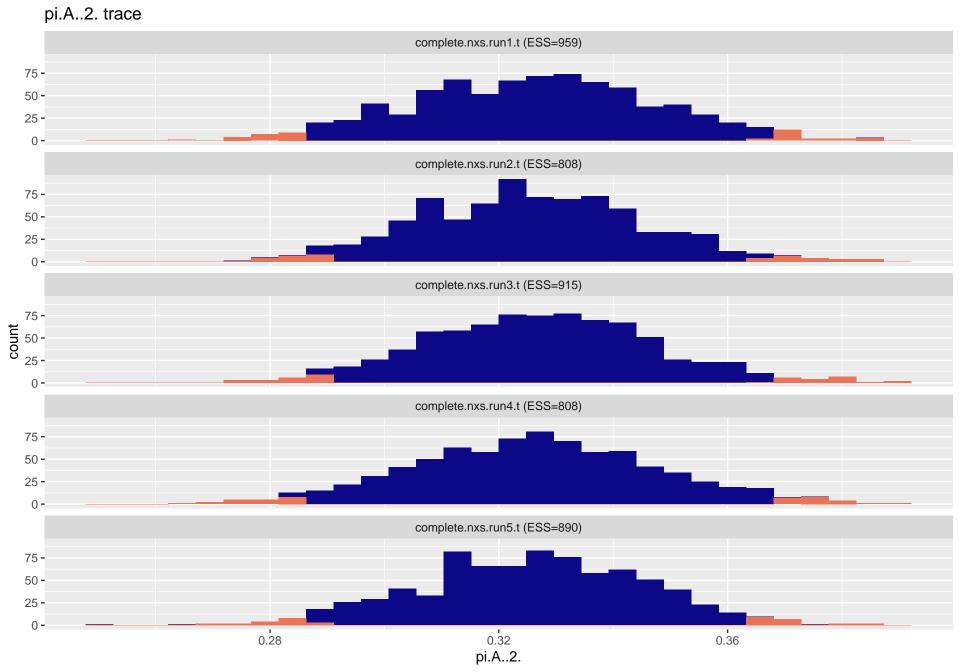




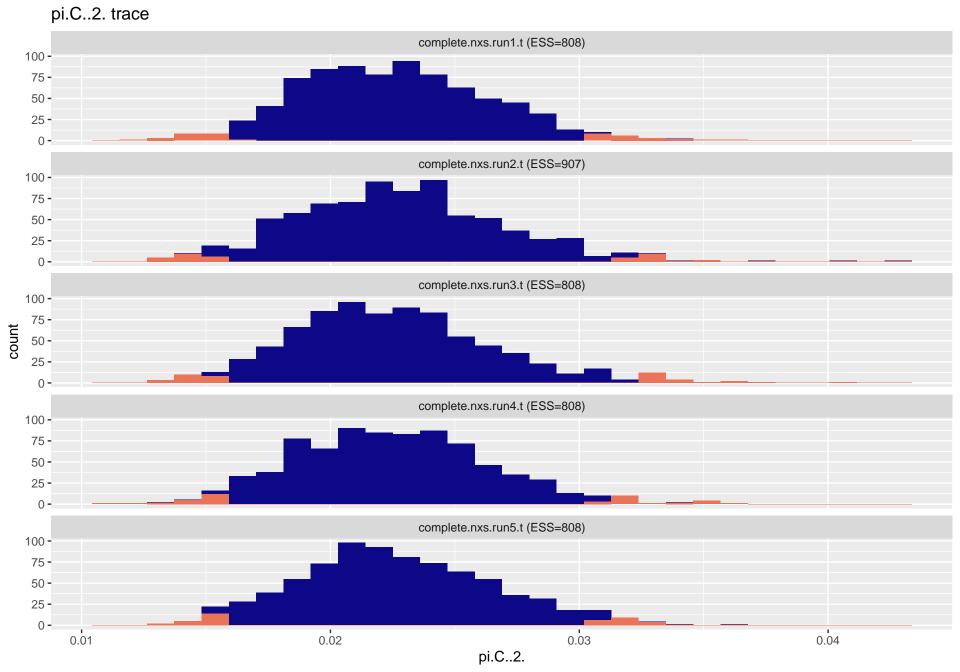
pi.DD..1. trace



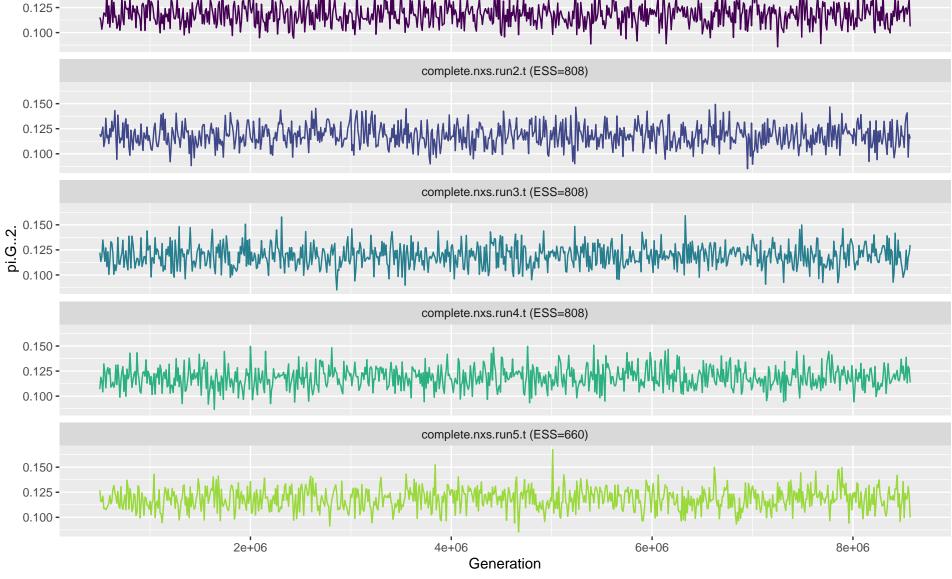




pi.C..2. trace complete.nxs.run1.t (ESS=808) 0.04 -0.03 -0.02 -0.01 complete.nxs.run2.t (ESS=907) 0.04 -0.03 -0.02 -0.01 complete.nxs.run3.t (ESS=808) 0.04 -0.03 -0.02 -0.01 complete.nxs.run4.t (ESS=808) 0.04 -0.03 -0.02 -0.01 complete.nxs.run5.t (ESS=808) 0.04 -0.03 -0.02 -0.01 -4e+06 6e+06 2e+06 8e+06 Generation



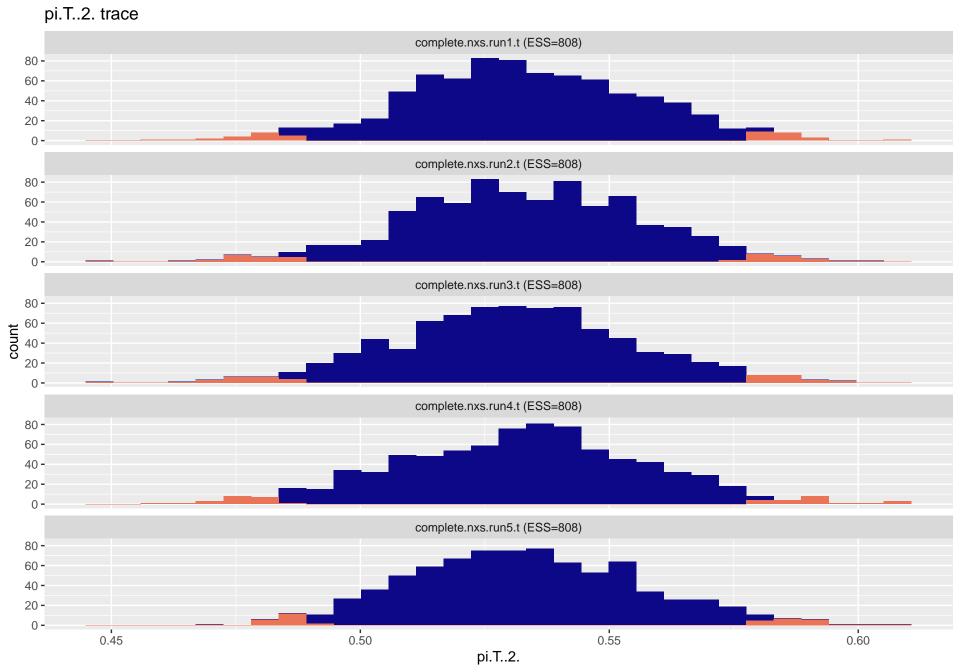
pi.G..2. trace complete.nxs.run1.t (ESS=808) complete.nxs.run2.t (ESS=808) complete.nxs.run3.t (ESS=808) complete.nxs.run4.t (ESS=808)



0.150 -

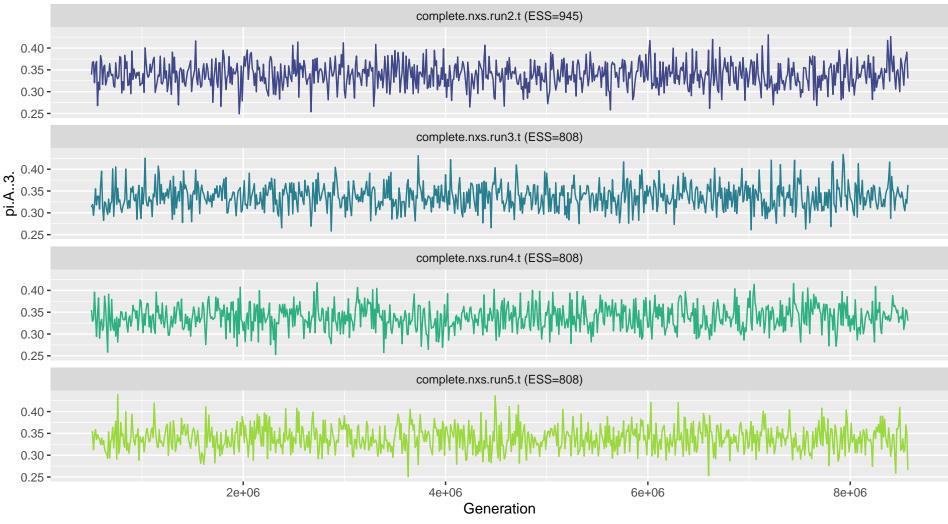
pi.G..2. trace complete.nxs.run1.t (ESS=808) 100 -75 **-**50 -25 -0 complete.nxs.run2.t (ESS=808) 100 -75 **-**50 -25 -0 complete.nxs.run3.t (ESS=808) 100 -75 count 50 -25 -0 complete.nxs.run4.t (ESS=808) 100 -75 **-**50 -25 -0 complete.nxs.run5.t (ESS=660) 100 -75 **-**50 -25 -0 -0.100 0.125 pi.G..2. 0.150

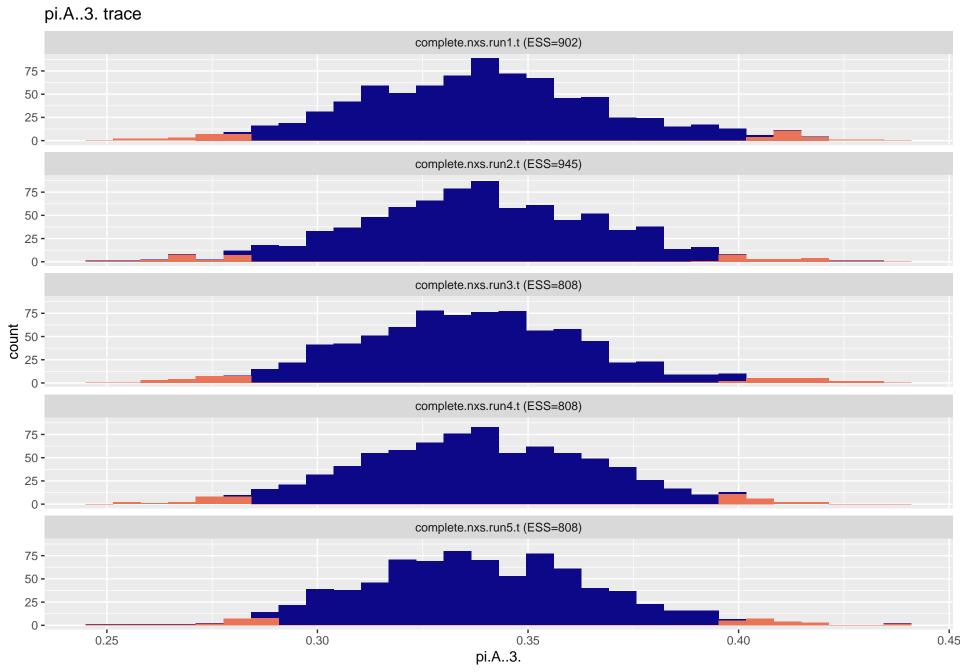
pi.T..2. trace complete.nxs.run1.t (ESS=808) 0.60 -0.55 -0.50 -0.45 complete.nxs.run2.t (ESS=808) 0.60 -0.55 -0.50 -0.45 complete.nxs.run3.t (ESS=808) 0.60 -0.55 -E 0.50 -0.45 complete.nxs.run4.t (ESS=808) 0.60 -0.55 -0.50 -0.45 complete.nxs.run5.t (ESS=808) 0.60 -0.55 -0.50 -0.45 -4e+06 2e+06 6e+06 8e+06 Generation



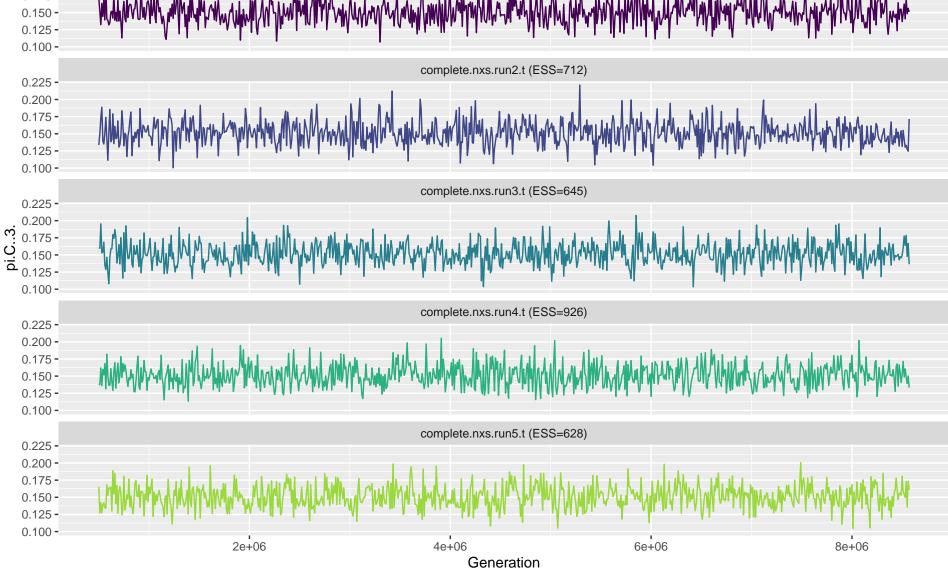
pi.A..3. trace complete.nxs.run1.t (ESS=902) complete.nxs.run2.t (ESS=945) complete.nxs.run3.t (ESS=808) complete.nxs.run4.t (ESS=808)

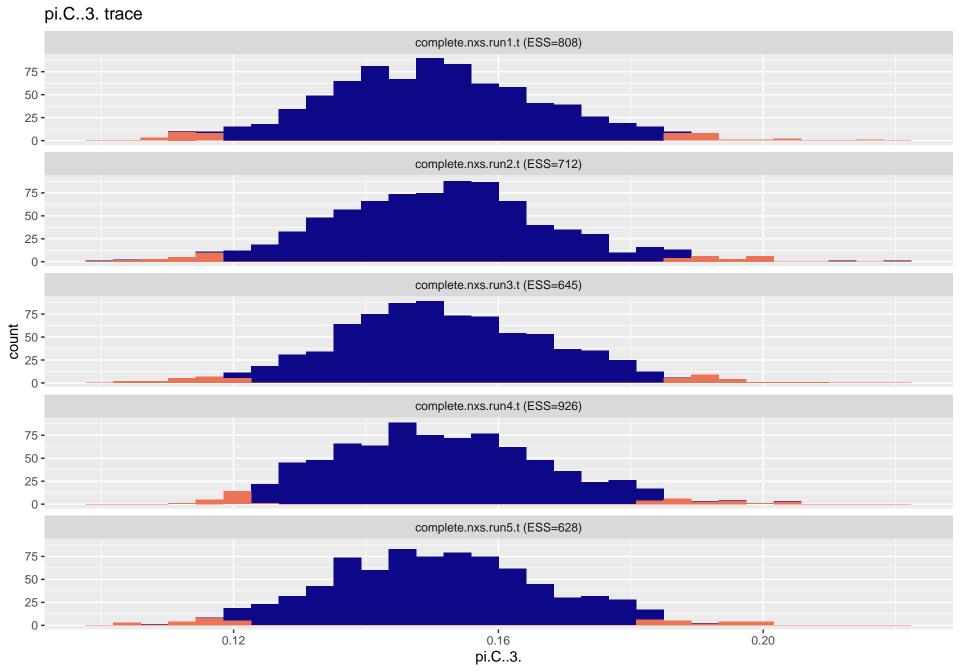
0.40 -0.35 -0.30 -0.25 -



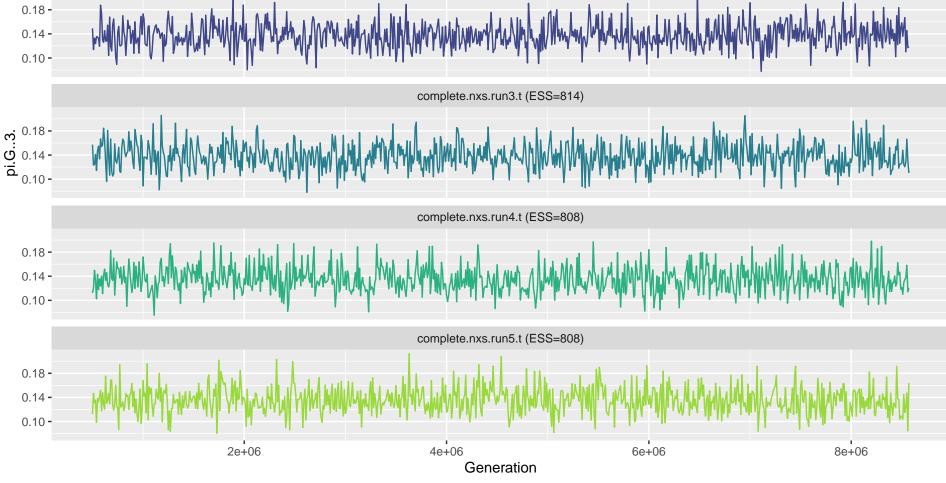


pi.C..3. trace complete.nxs.run1.t (ESS=808) 0.225 -0.200 -0.175 complete.nxs.run2.t (ESS=712) $\frac{1}{2} \frac{1}{2} \frac{1}$ complete.nxs.run3.t (ESS=645) complete.nxs.run4.t (ESS=926) complete.nxs.run5.t (ESS=628)

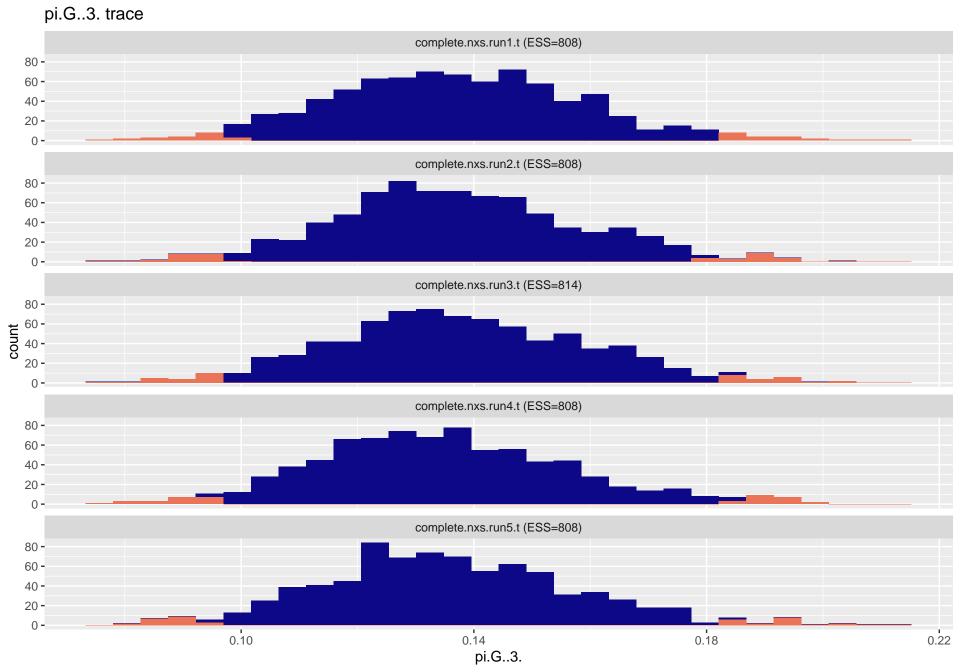




pi.G..3. trace complete.nxs.run1.t (ESS=808) complete.nxs.run2.t (ESS=808) $+ \frac{1}{2} \left(\frac{1}{2}$ complete.nxs.run3.t (ESS=814) $\label{eq:local_$ complete.nxs.run4.t (ESS=808)



0.18 -0.14 -0.10 -



pi.T..3. trace complete.nxs.run1.t (ESS=808) complete.nxs.run2.t (ESS=808) complete.nxs.run3.t (ESS=1165) complete.nxs.run4.t (ESS=710) complete.nxs.run5.t (ESS=808)

0.45 -0.40 -0.35 -0.30 -

0.45 -0.40 -0.35 -0.30 -

0.45 -

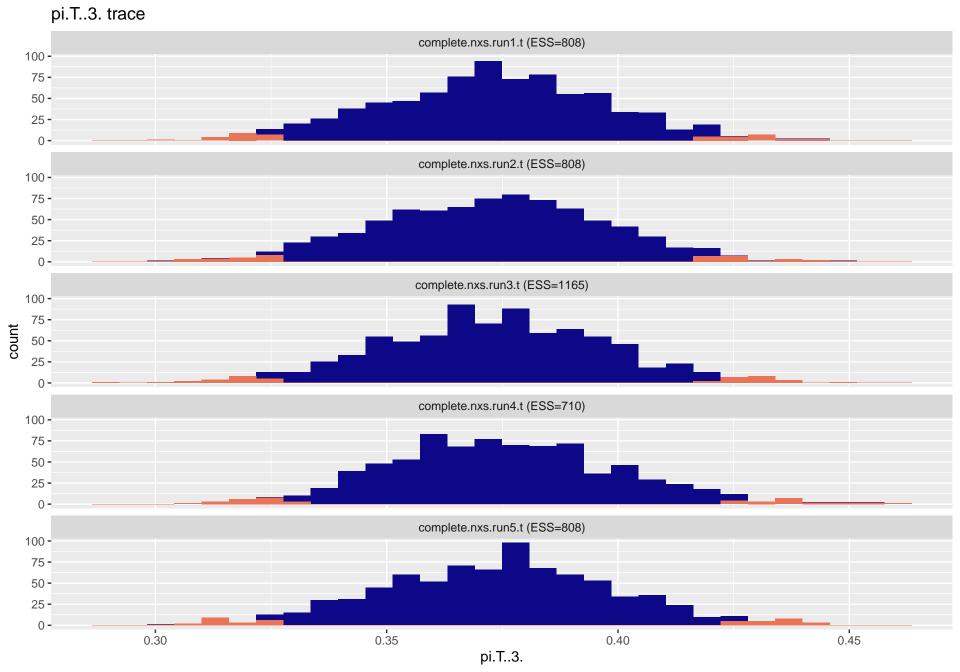
0.30 -

0.45 -0.40 -0.35 -0.30 -

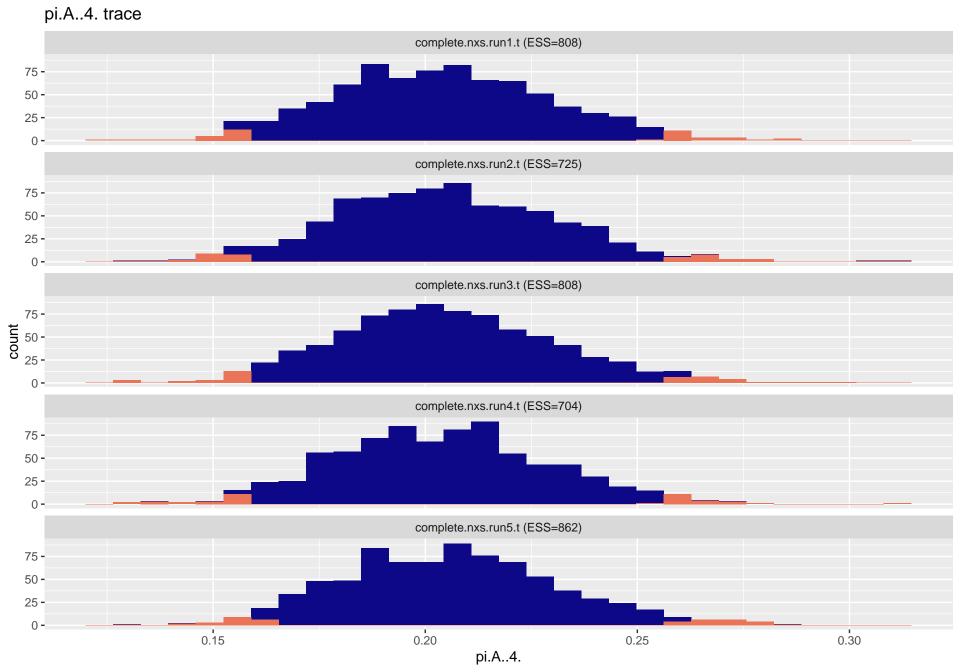
0.45 -0.40 -0.35 -0.30 -

ල 0.40 -ට 0.35 -

4e+06 2e+06 6e+06 8e+06 Generation



0.30 -0.25 -0.20 -0.15 -0.30 -7: 0.25 -4: 0.20 -0.15 -0.30 -0.25 -0.20 -0.15 -0.30 -0.25 -0.20 -0.15 -4e+06 2e+06 6e+06 8e+06 Generation

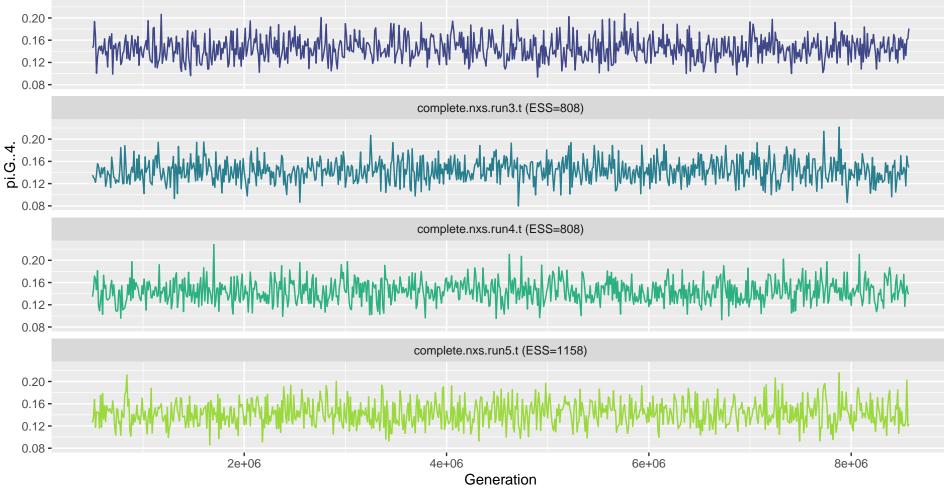


pi.C..4. trace complete.nxs.run1.t (ESS=873) 0.35 -0.30 -0.25 -0.20 -0.15 complete.nxs.run2.t (ESS=808) 0.35 -0.30 -0.25 -0.20 -0.15 complete.nxs.run3.t (ESS=808) 0.35 -4: 0.30 0.25 -0.20 -0.15 complete.nxs.run4.t (ESS=1020) 0.35 -0.30 -0.25 -0.20 -0.15 complete.nxs.run5.t (ESS=808) 0.35 -0.30 -0.25 -0.20 -0.15 -6e+06 2e+06 4e+06 8e+06

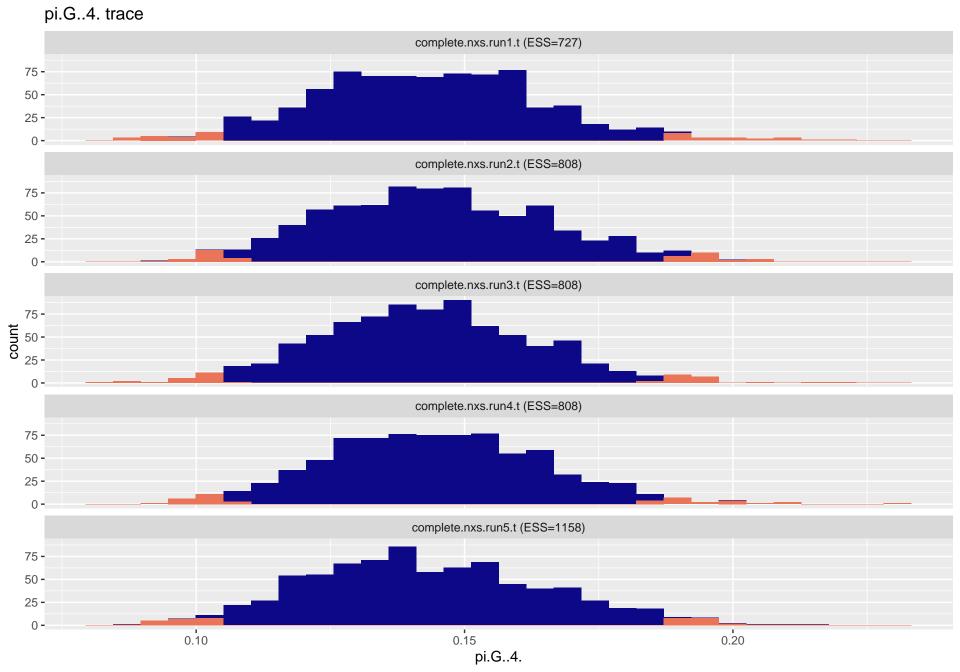
Generation

pi.C..4. trace complete.nxs.run1.t (ESS=873) 100 -75 **-**50 **-**25 -0 complete.nxs.run2.t (ESS=808) 100 -75 **-**50 -25 -0 complete.nxs.run3.t (ESS=808) 100 count 75 **-**50 **-**25 **-**0 complete.nxs.run4.t (ESS=1020) 100 -75 -50 -25 **-**0 complete.nxs.run5.t (ESS=808) 100 -75 **-**50 -25 **-**0 -0.20 0.25 pi.C..4. 0.15 0.30 0.35

pi.G..4. trace complete.nxs.run1.t (ESS=727) complete.nxs.run2.t (ESS=808) complete.nxs.run3.t (ESS=808) complete.nxs.run4.t (ESS=808) complete.nxs.run5.t (ESS=1158)

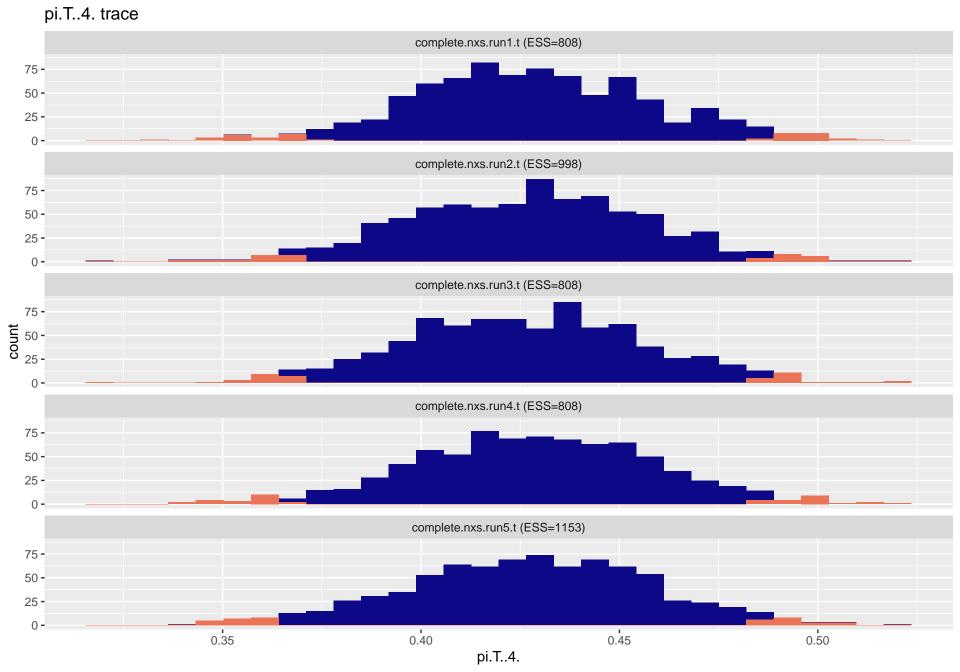


0.20 -0.16 -0.12 -0.08 -

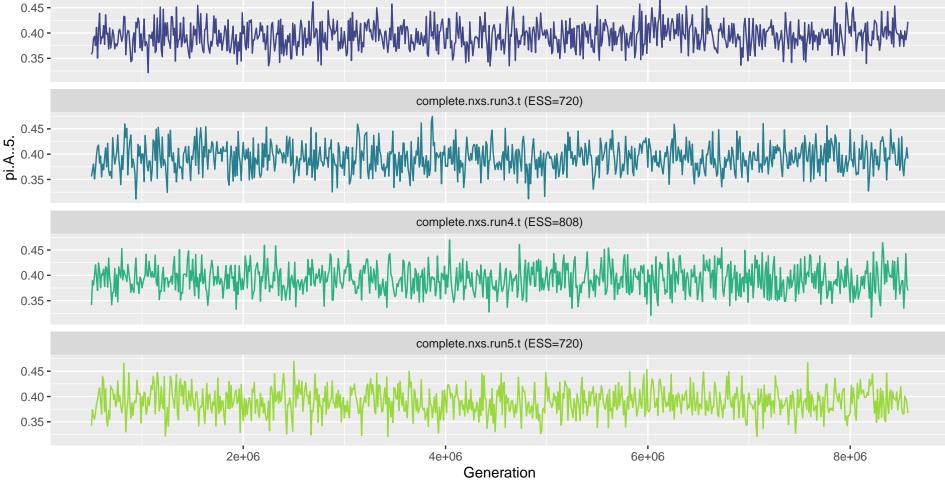


pi.T..4. trace complete.nxs.run1.t (ESS=808) 0.50 -0.45 -0.40 -0.35 complete.nxs.run2.t (ESS=998) 0.50 -0.45 -0.40 -0.35 complete.nxs.run3.t (ESS=808) 0.50 -4. 0.40 -0.35 complete.nxs.run4.t (ESS=808) 0.50 -0.45 -0.40 -0.35 complete.nxs.run5.t (ESS=1153) 0.50 -0.45 -0.40 -0.35 -

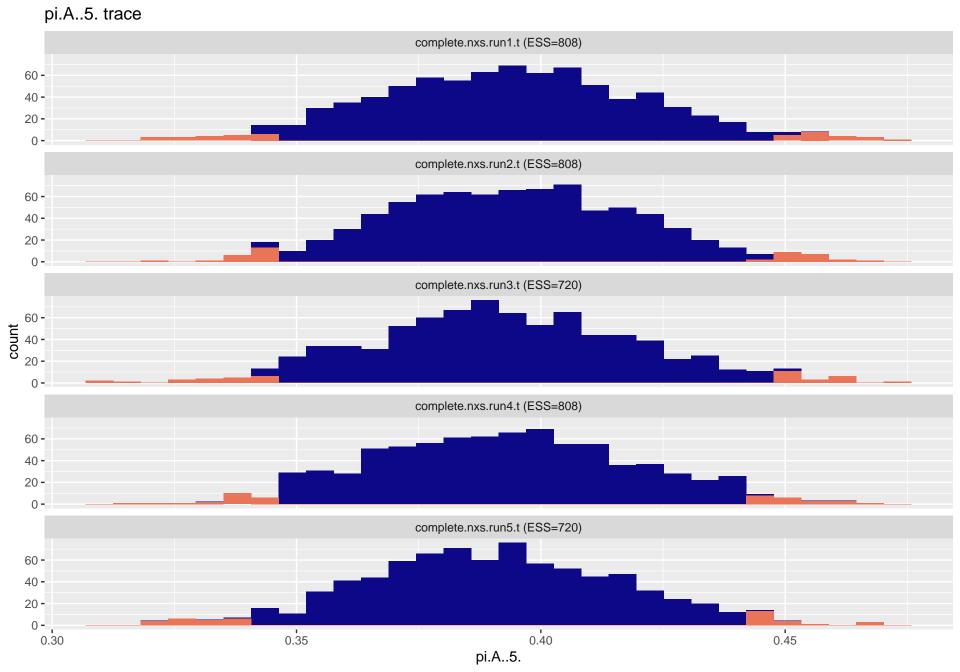
4e+06 6e+06 2e+06 8e+06 Generation



pi.A..5. trace complete.nxs.run1.t (ESS=808) complete.nxs.run2.t (ESS=808) complete.nxs.run3.t (ESS=720) complete.nxs.run4.t (ESS=808) complete.nxs.run5.t (ESS=720)



0.45 -0.40 -0.35 -

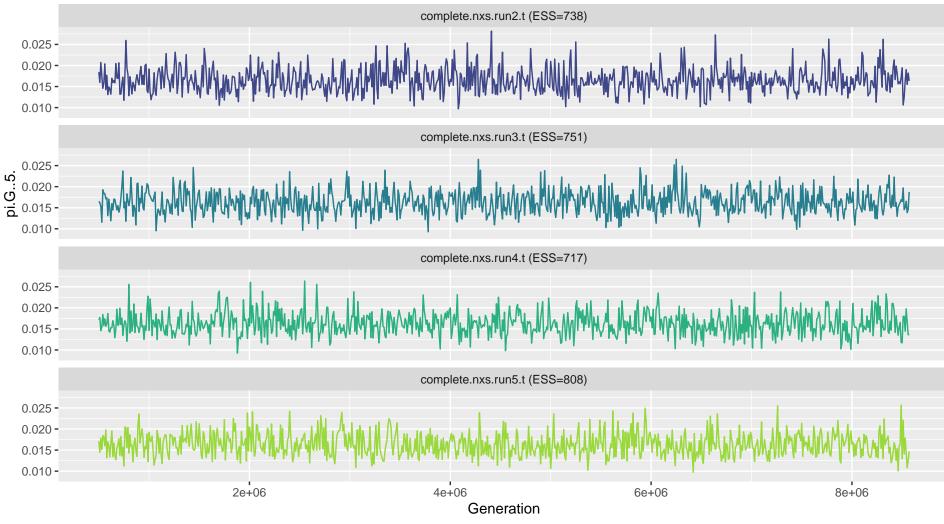


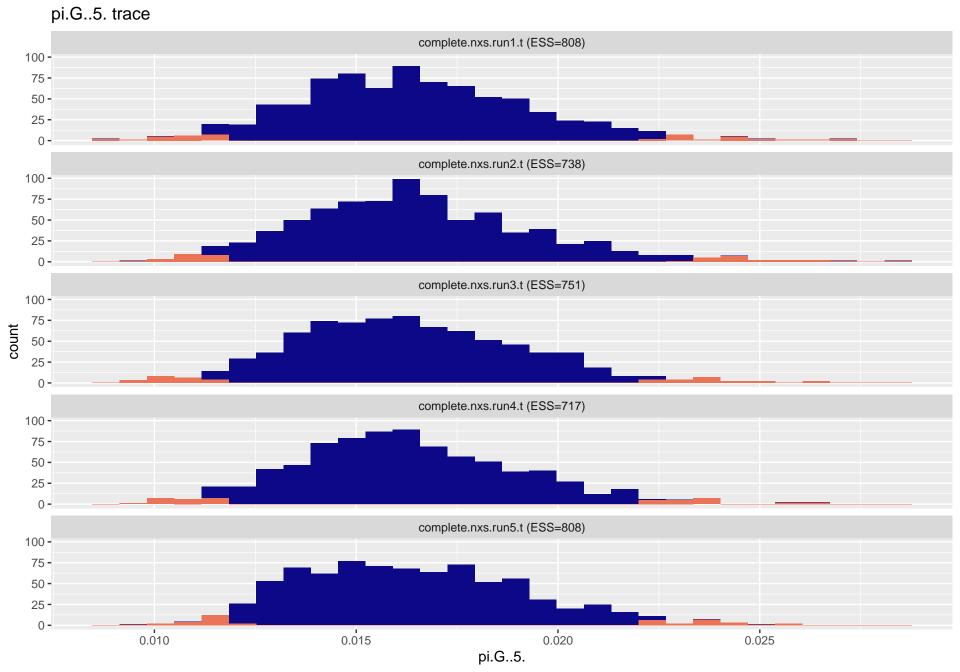
pi.C..5. trace complete.nxs.run1.t (ESS=808) 0.20 -0.18 -0.16 -0.14 -0.12 complete.nxs.run2.t (ESS=808) 0.20 -0.18 -0.16 -0.14 -0.12 complete.nxs.run3.t (ESS=688) 0.20 -ഗ് 0.18 -O.16 -0.12 complete.nxs.run4.t (ESS=808) 0.20 -0.18 -0.16 -0.14 -0.12 complete.nxs.run5.t (ESS=808) 0.20 -0.18 -0.16 -0.14 -0.12 -4e+06 2e+06 6e+06 8e+06

Generation

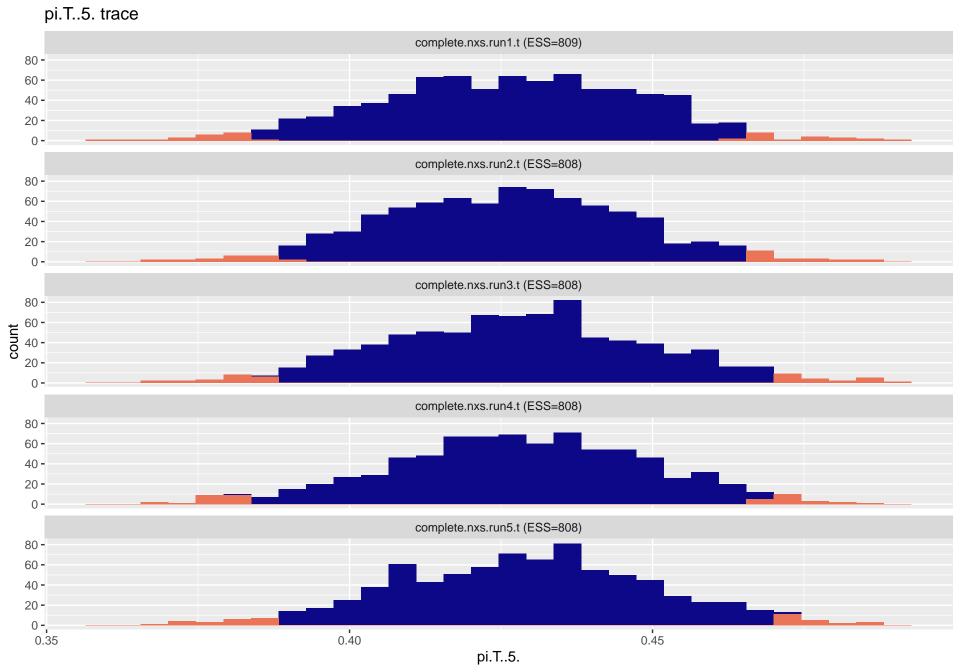
pi.C..5. trace complete.nxs.run1.t (ESS=808) 75 **-**50 -25 **-**0 complete.nxs.run2.t (ESS=808) 75 **-**50 -25 -0 complete.nxs.run3.t (ESS=688) 75 **-**50 - 25 -0 complete.nxs.run4.t (ESS=808) 75 -50 -25 -0 complete.nxs.run5.t (ESS=808) 75 **-**50 -25 -0 -0.14 0.16 0.18 0.12 0.20 pi.C..5.

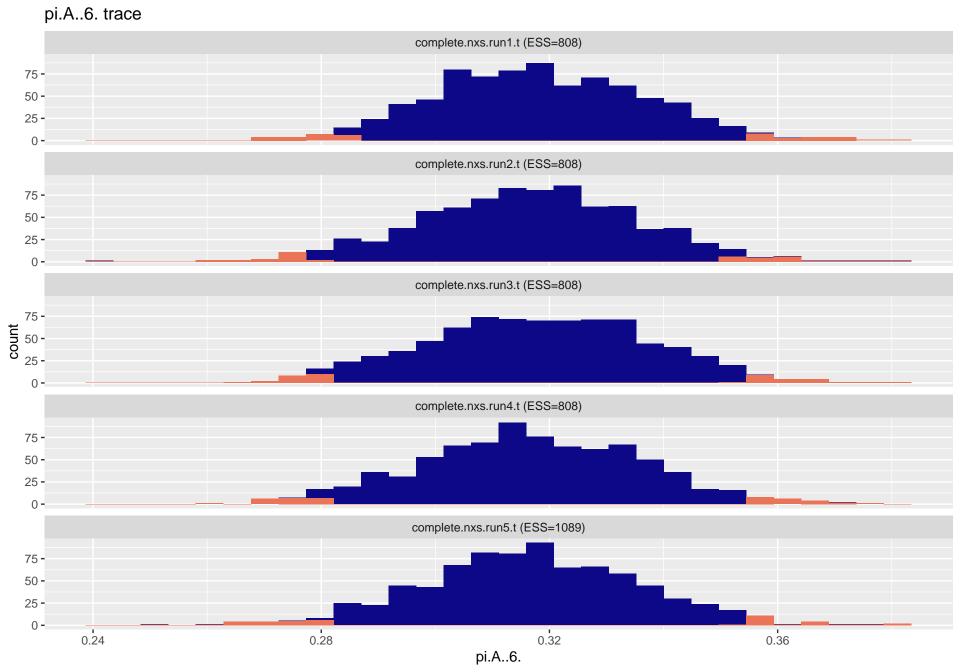
pi.G..5. trace complete.nxs.run1.t (ESS=808) 0.025 -0.020 -0.015 -0.010 complete.nxs.run2.t (ESS=738) complete.nxs.run3.t (ESS=751) complete.nxs.run4.t (ESS=717) complete.nxs.run5.t (ESS=808)



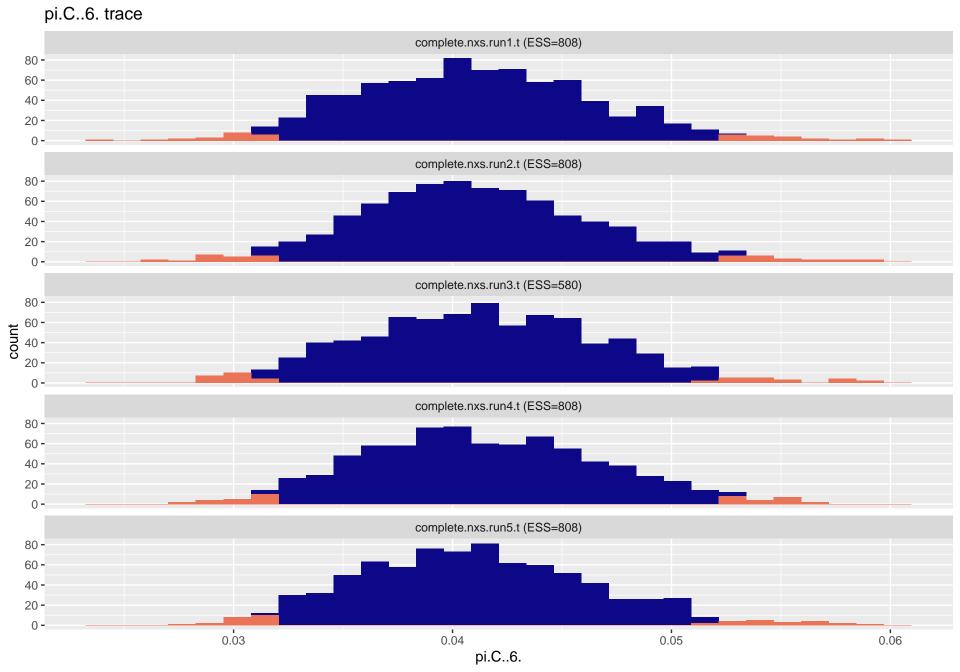


pi.T..5. trace 0.45 -0.40 complete.nxs.run2.t (ESS=808) 0.45 -0.40 complete.nxs.run3.t (ESS=808) 0.45 -d 0.40 complete.nxs.run4.t (ESS=808) 0.45 -0.40 complete.nxs.run5.t (ESS=808) 0.45 -0.40 -2e+06 4e+06 6e+06 8e+06 Generation



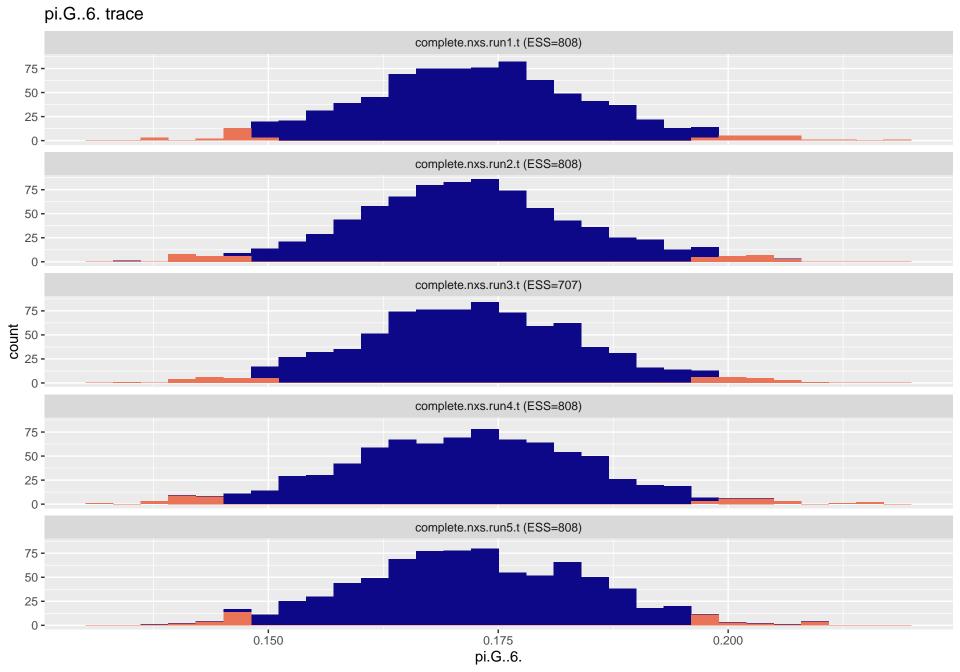


pi.C..6. trace complete.nxs.run1.t (ESS=808) 0.06 -0.05 -0.04 -0.03 complete.nxs.run2.t (ESS=808) 0.06 -0.05 -0.04 -0.03 complete.nxs.run3.t (ESS=580) 0.06 -9: 0.05 -0.04 -0.03 complete.nxs.run4.t (ESS=808) 0.06 -0.05 -0.04 -0.03 complete.nxs.run5.t (ESS=808) 0.06 -0.05 -0.04 -0.03 -4e+06 6e+06 2e+06 8e+06 Generation

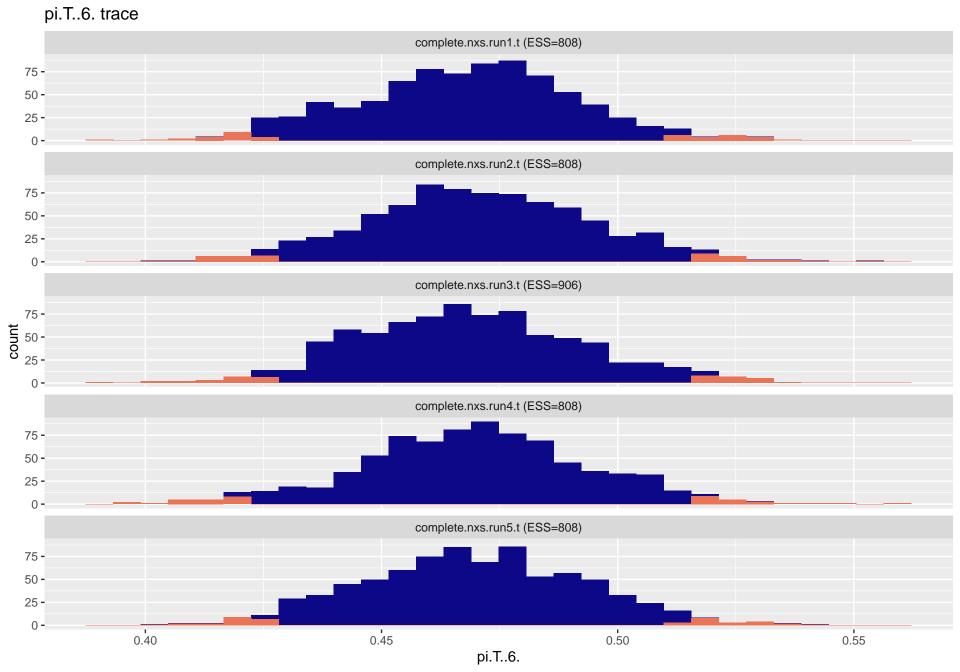


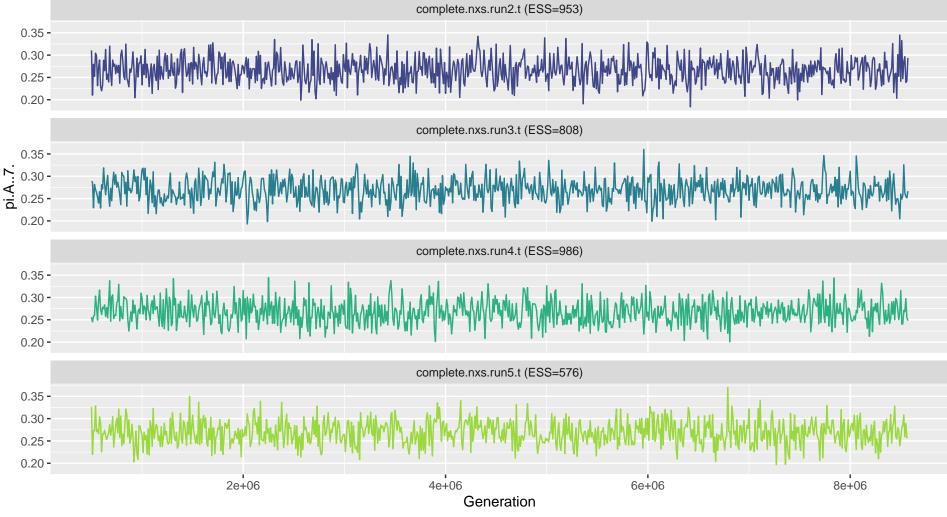
pi.G..6. trace complete.nxs.run1.t (ESS=808) 0.200 -0.175 -0.150 complete.nxs.run2.t (ESS=808) 0.200 -0.175 -0.150 complete.nxs.run3.t (ESS=707) 9: 0.200 -9: 0.175 -0.150 complete.nxs.run4.t (ESS=808) 0.200 -0.175 -0.150 complete.nxs.run5.t (ESS=808) 0.200 -0.175 -0.150 -2e+06 8e+06

Generation

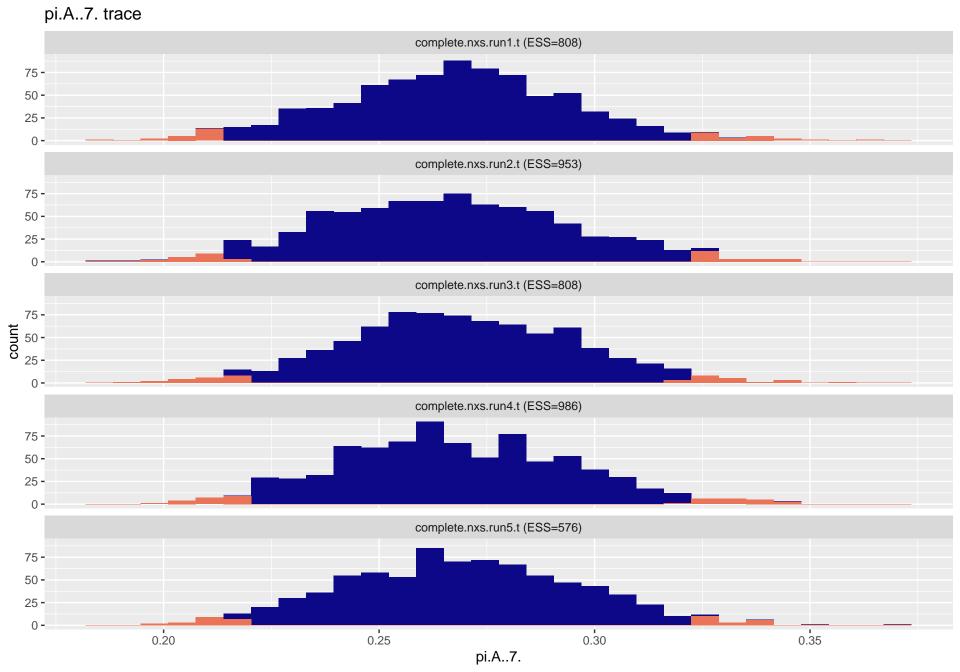


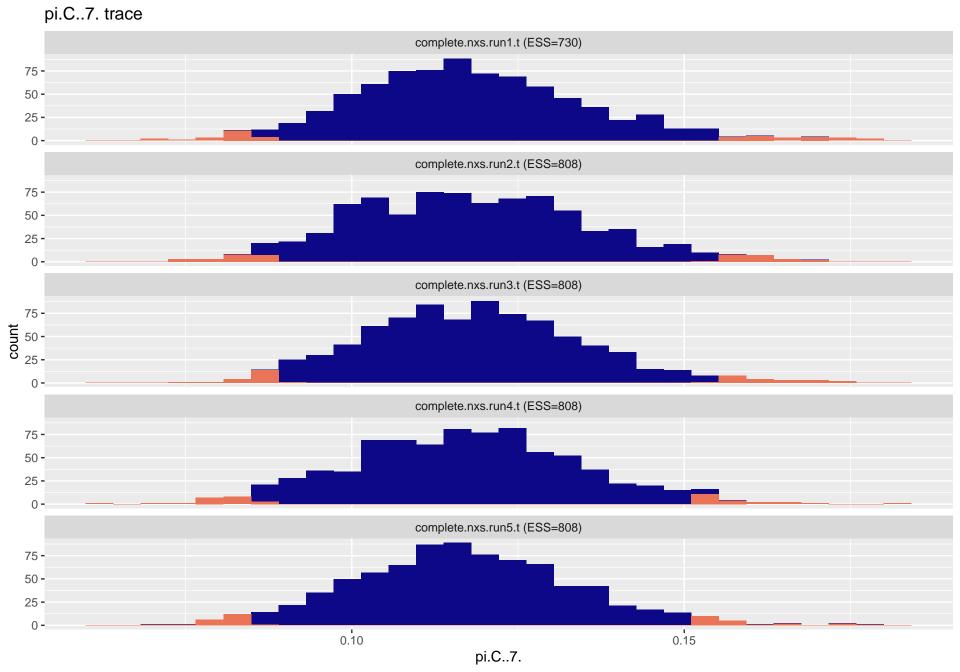
pi.T..6. trace complete.nxs.run1.t (ESS=808) 0.55 -0.50 -0.45 -0.40 complete.nxs.run2.t (ESS=808) 0.55 -0.50 -0.45 -0.40 complete.nxs.run3.t (ESS=906) 0.55 -9. 0.50 -E 0.45 -0.40 complete.nxs.run4.t (ESS=808) 0.55 -0.50 -0.45 -0.40 complete.nxs.run5.t (ESS=808) 0.55 -0.50 -0.45 -0.40 -2e+06 4e+06 6e+06 8e+06 Generation



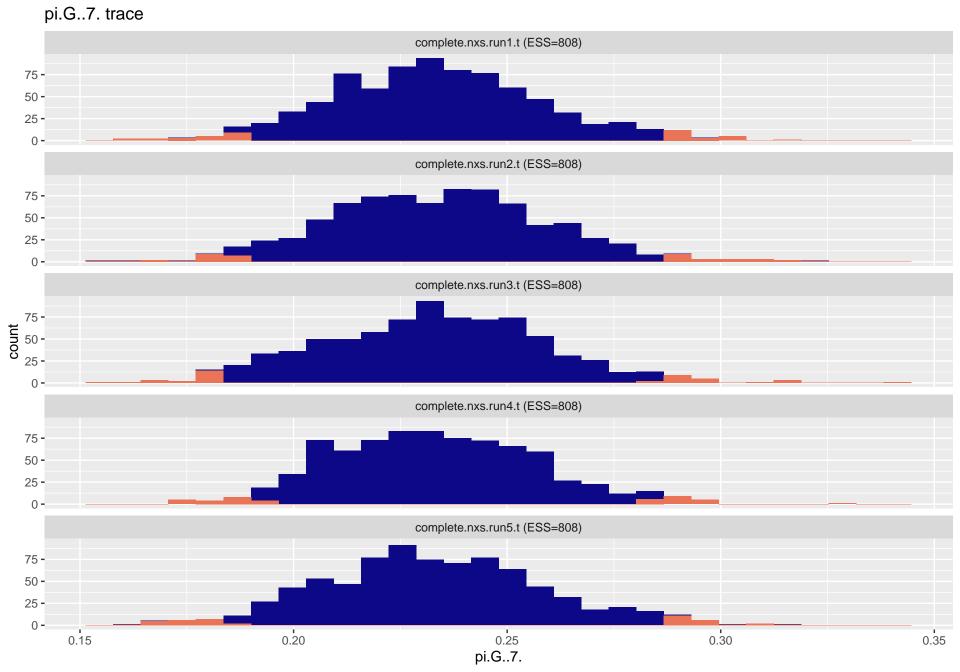


0.35 -0.30 -0.25 -0.20 -

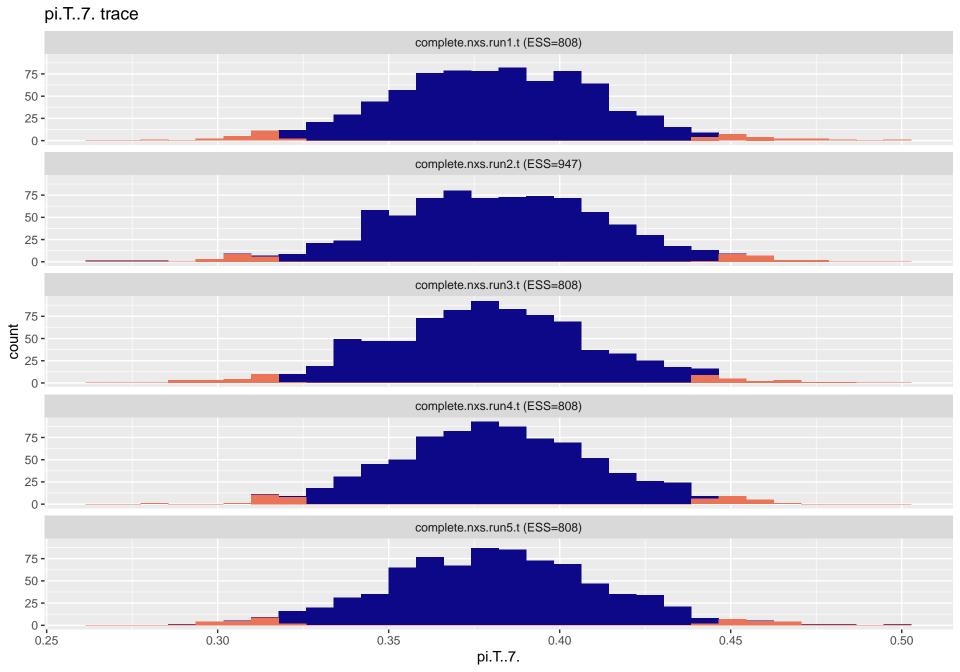


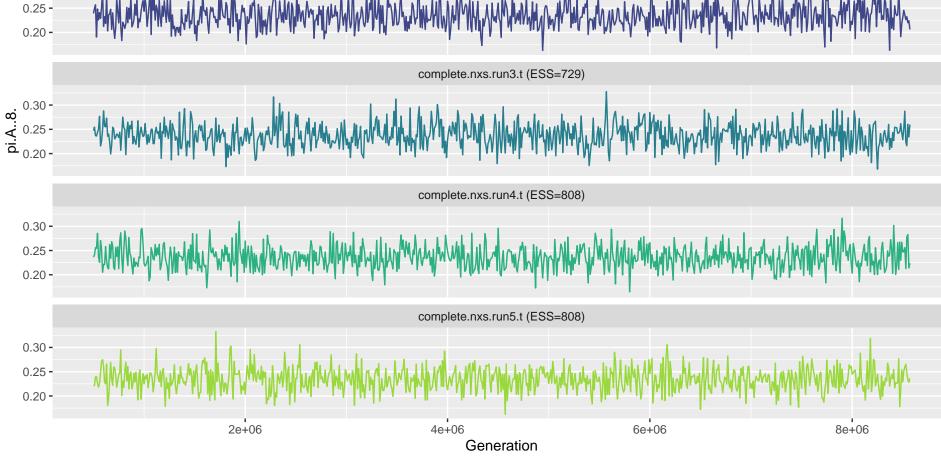


pi.G..7. trace complete.nxs.run1.t (ESS=808) 0.30 -0.25 -0.20 -0.15 complete.nxs.run2.t (ESS=808) 0.30 -0.25 -0.20 -0.15 complete.nxs.run3.t (ESS=808) 0.30 -5: 0.25 -0.20 -0.15 complete.nxs.run4.t (ESS=808) 0.30 -0.25 -0.20 -0.15 complete.nxs.run5.t (ESS=808) 0.30 -0.25 -0.20 -0.15 -4e+06 6e+06 2e+06 8e+06 Generation



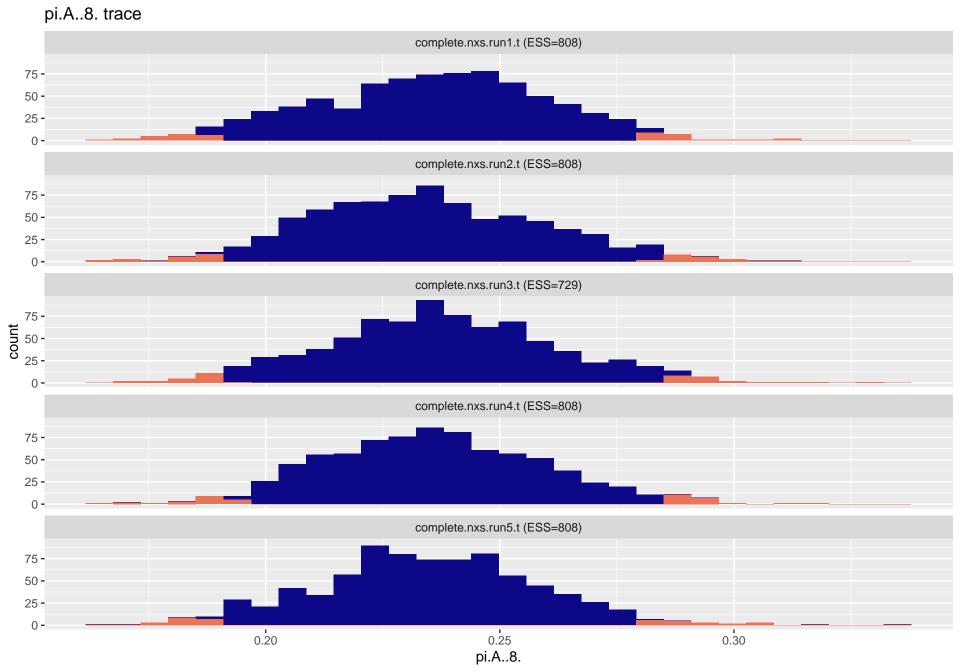
pi.T..7. trace complete.nxs.run1.t (ESS=808) 0.50 -0.45 -0.40 -0.35 -0.30 complete.nxs.run2.t (ESS=947) 0.50 -0.45 -0.40 -0.35 -0.30 complete.nxs.run3.t (ESS=808) 0.50 -0.45 -0.40 -0.35 -0.30 complete.nxs.run4.t (ESS=808) 0.50 -0.45 -0.40 -0.35 -0.30 complete.nxs.run5.t (ESS=808) 0.50 -0.45 -0.40 -0.35 -0.30 -4e+06 2e+06 6e+06 8e+06 Generation





0.30 -0.25 -0.20 -

0.30 -



pi.C..8. trace complete.nxs.run1.t (ESS=808) 0.175 -0.150 -0.125 -0.100 -0.075 -0.050 complete.nxs.run2.t (ESS=652) 0.175 -0.150 -0.125 -0.100 -0.075 -0.050 complete.nxs.run3.t (ESS=860) 0.175 -0.150 pi.C..8. 0.125 -0.100 -0.075 -0.050 complete.nxs.run4.t (ESS=808) 0.175 -0.150 -0.125 -0.100 -0.075 -0.050 complete.nxs.run5.t (ESS=816) 0.175 -0.150 -0.125 -0.100 -0.075 -

4e+06

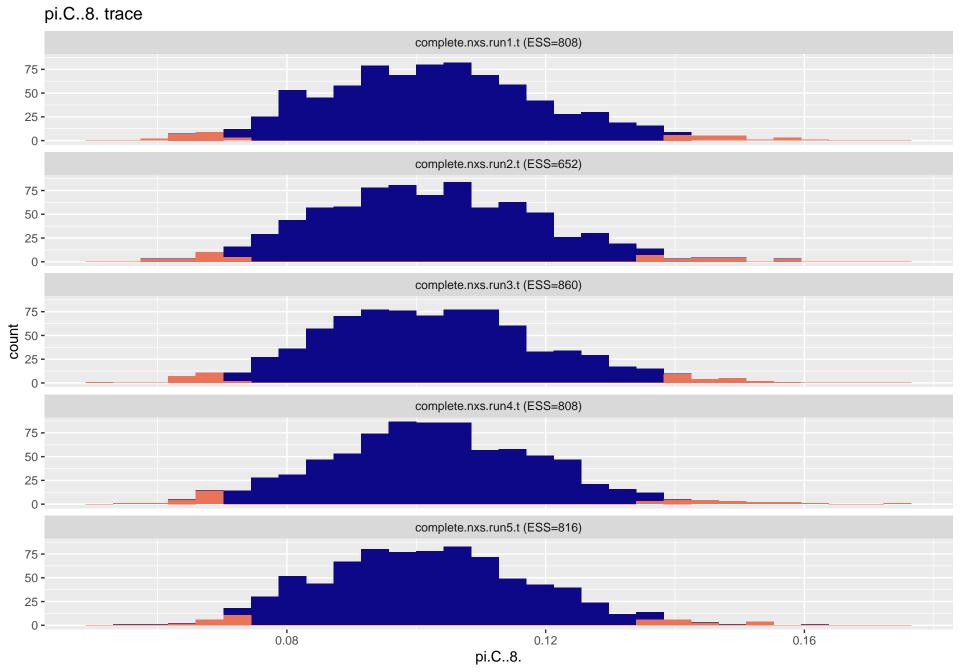
Generation

6e+06

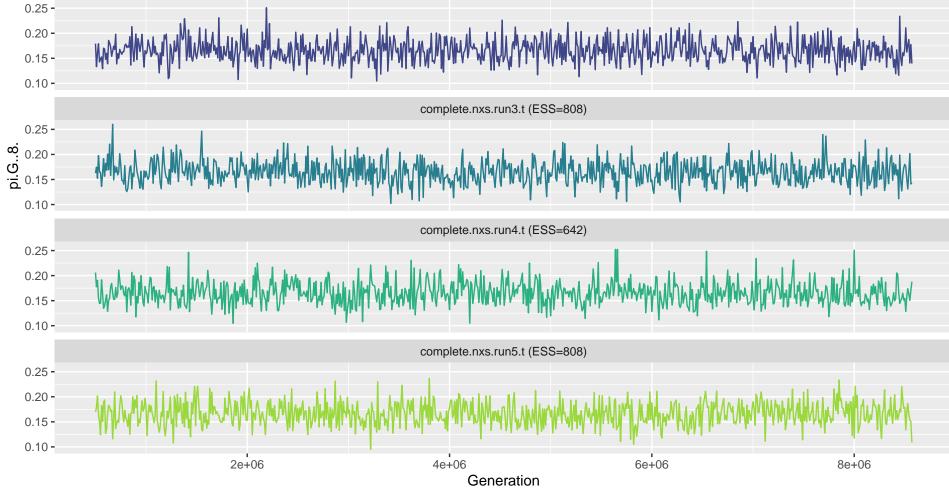
8e+06

2e+06

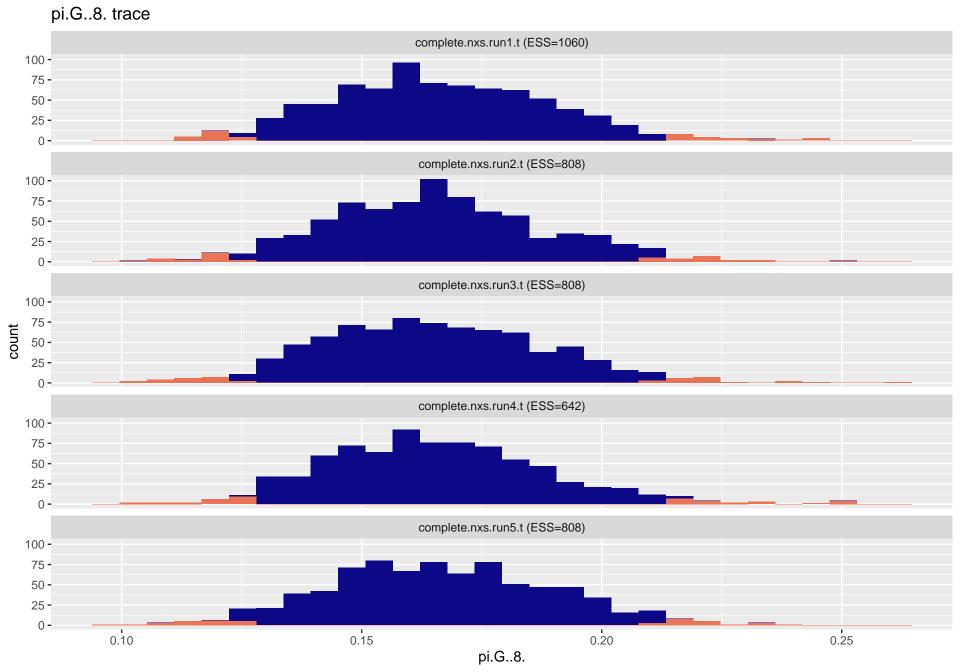
0.050 -



pi.G..8. trace complete.nxs.run1.t (ESS=1060) complete.nxs.run2.t (ESS=808) complete.nxs.run3.t (ESS=808) complete.nxs.run4.t (ESS=642) complete.nxs.run5.t (ESS=808)



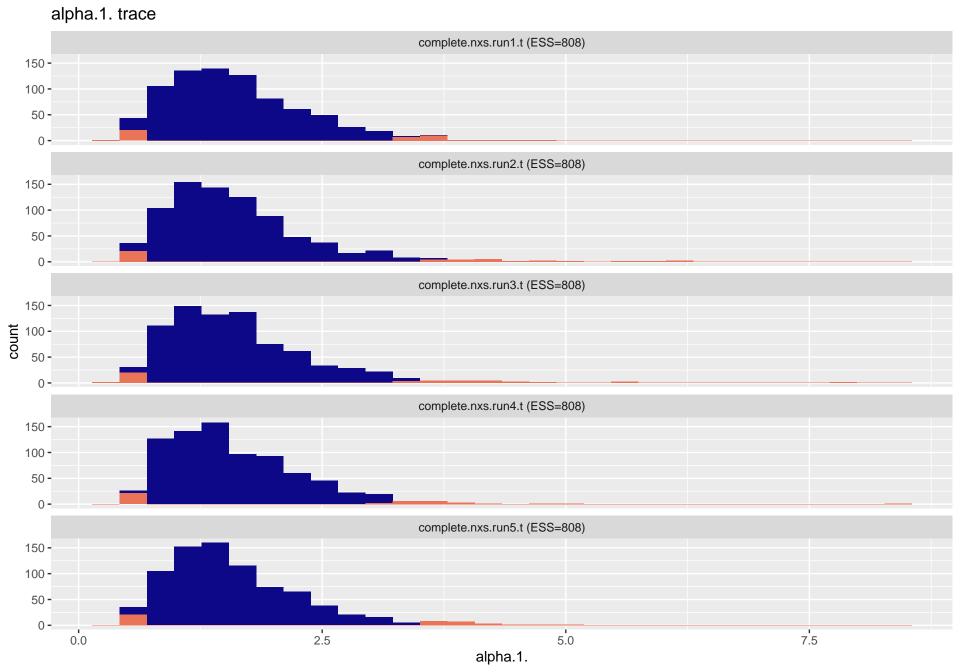
0.25 -0.20 -0.15 -0.10 -



pi.T..8. trace complete.nxs.run1.t (ESS=808) 0.60 -0.55 -0.50 -0.45 -0.40 complete.nxs.run2.t (ESS=808) 0.60 -0.55 -0.50 -0.45 -0.40 complete.nxs.run3.t (ESS=808) 0.60 -0.55 -0.50 -0.45 -0.55 -0.40 complete.nxs.run4.t (ESS=808) 0.60 -0.55 -0.50 -0.45 -0.40 complete.nxs.run5.t (ESS=808) 0.60 -0.55 -0.50 -0.45 -0.40 -4e+06 6e+06 2e+06 8e+06 Generation

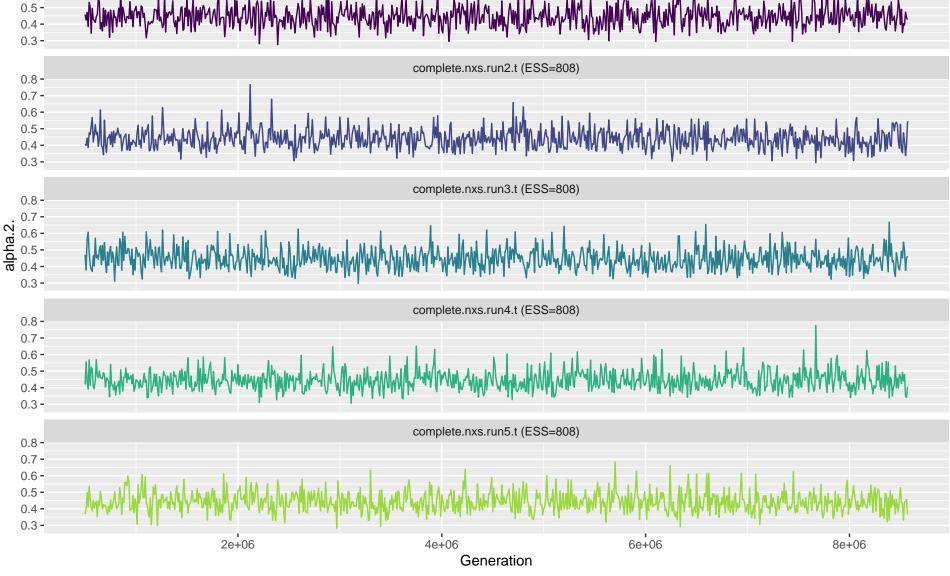
pi.T..8. trace complete.nxs.run1.t (ESS=808) 75 **-**50 **-**25 **-**0 complete.nxs.run2.t (ESS=808) 75 **-**50 -25 -0 complete.nxs.run3.t (ESS=808) 75 **-**75 -50 -25 -0 complete.nxs.run4.t (ESS=808) 75 -50 **-**25 -0 complete.nxs.run5.t (ESS=808) 75 **-**50 -25 -0 -0.40 0.45 0.50 0.55 0.60 pi.T..8.

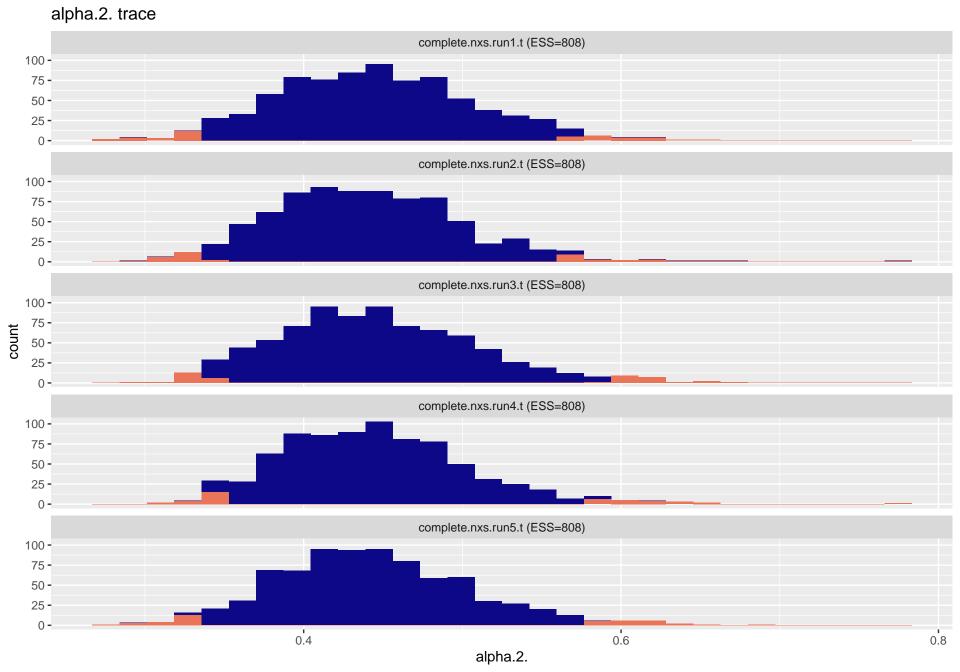


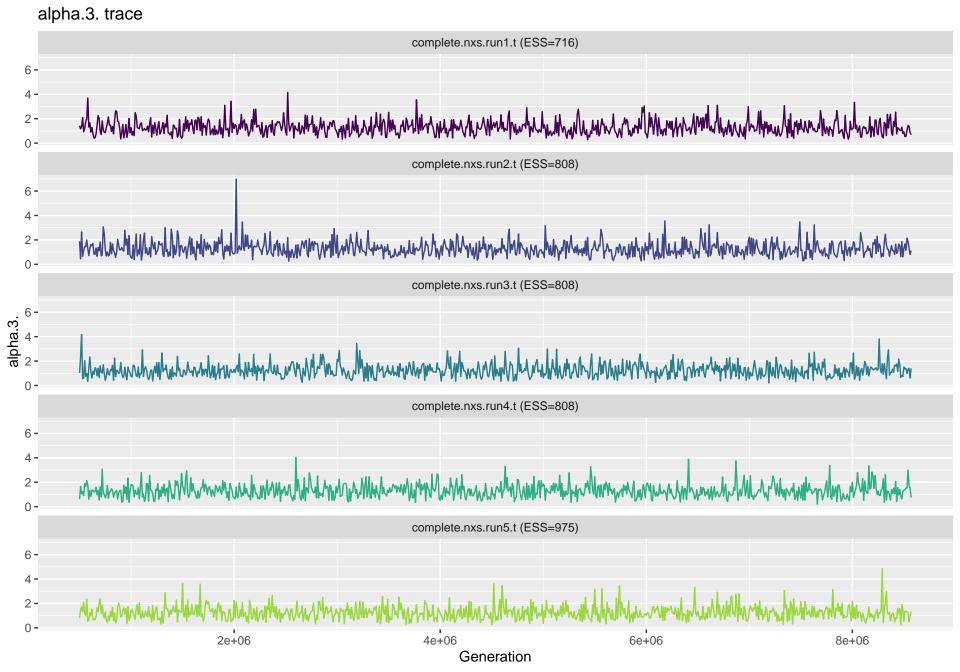


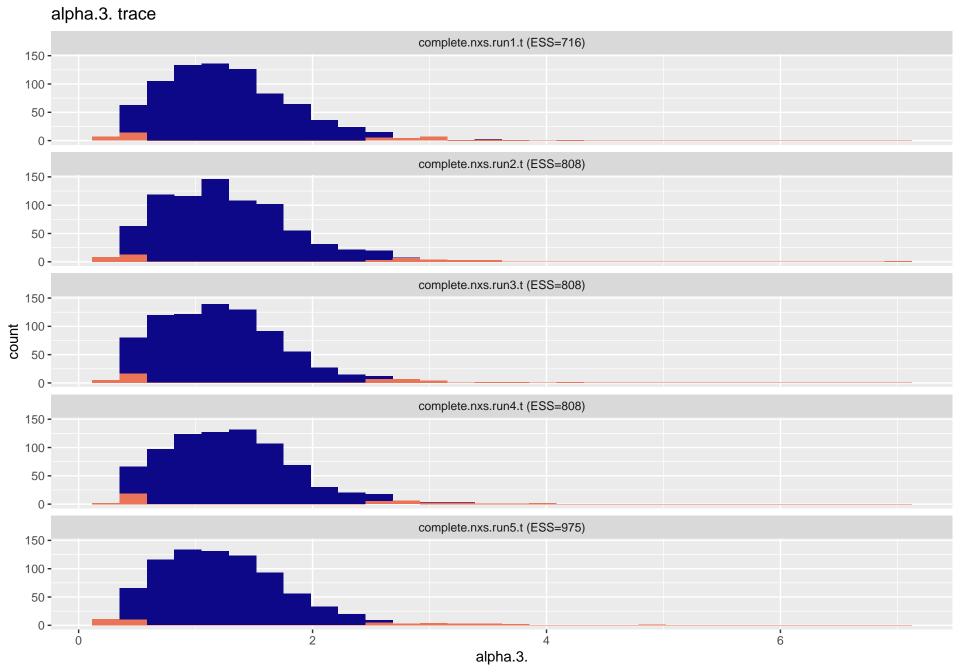
alpha.2. trace complete.nxs.run1.t (ESS=808) complete.nxs.run2.t (ESS=808) complete.nxs.run3.t (ESS=808) complete.nxs.run4.t (ESS=808)

0.8 -0.7 -0.6 -

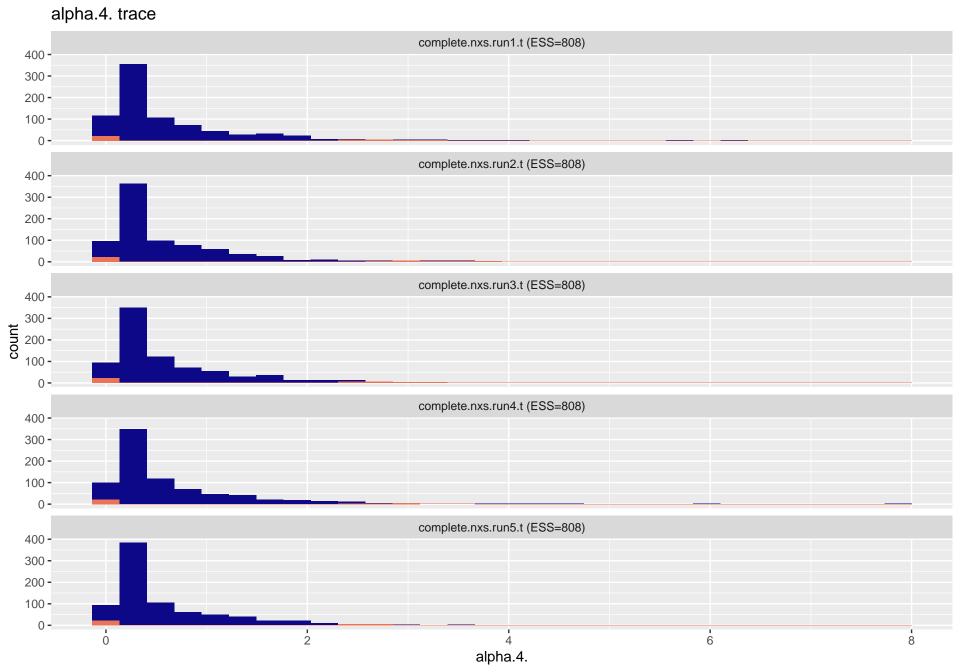


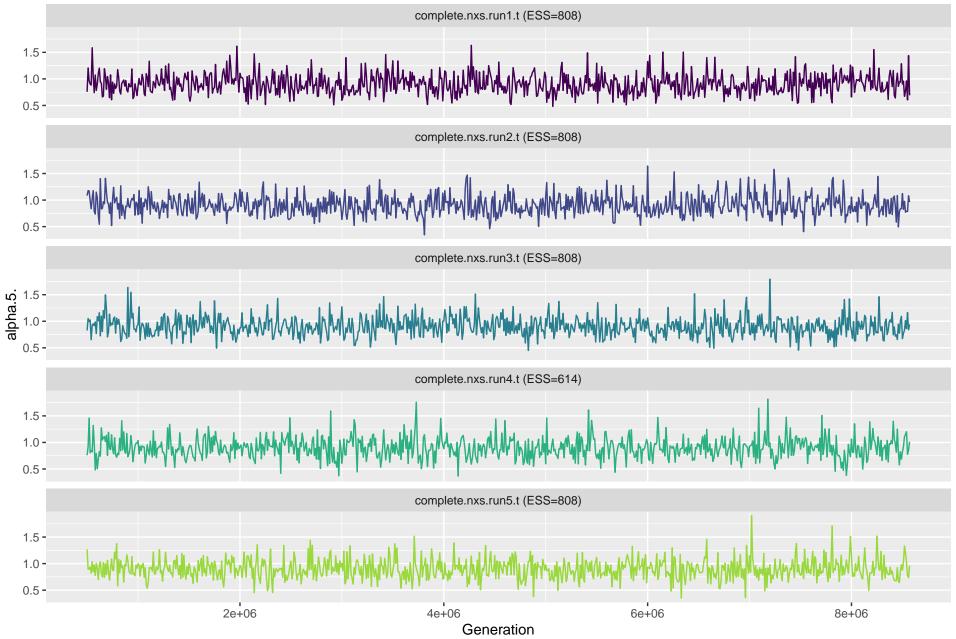








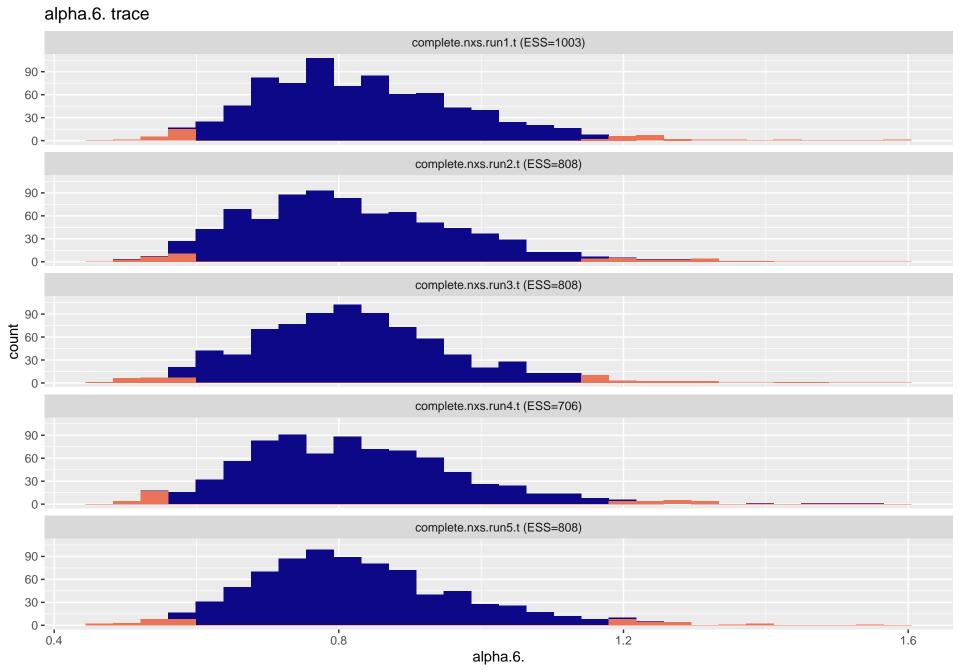




alpha.5. trace complete.nxs.run1.t (ESS=808) 90 -60 **-**30 -0 complete.nxs.run2.t (ESS=808) 90 -60 -30 -0 complete.nxs.run3.t (ESS=808) 90 contraction 30 -0 complete.nxs.run4.t (ESS=614) 90 -60 **-**30 -0 complete.nxs.run5.t (ESS=808) 90 -60 -30 **-**0 -1.0 1.5 0.5 alpha.5.

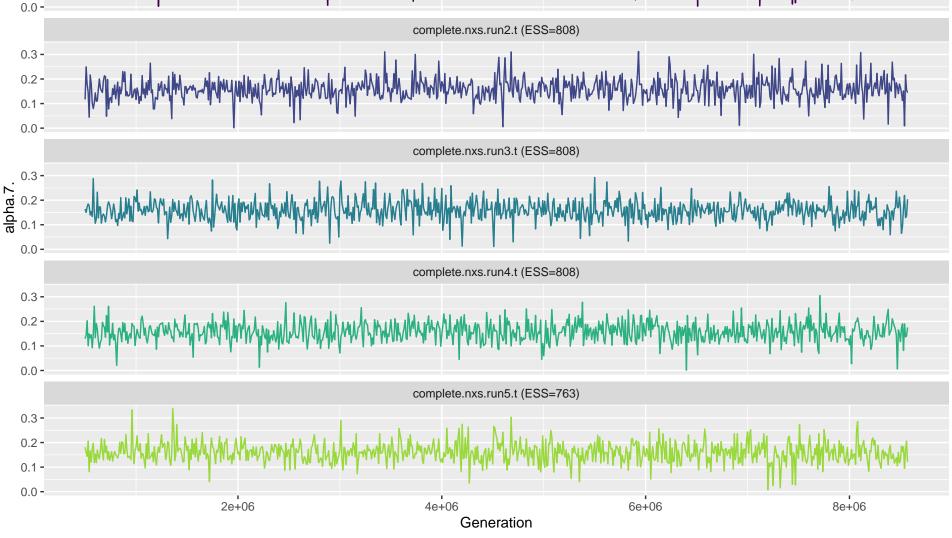
alpha.6. trace complete.nxs.run1.t (ESS=1003) 1.6 -1.2 -0.8 complete.nxs.run2.t (ESS=808) 1.6 -1.2 -0.8 complete.nxs.run3.t (ESS=808) 1.6 albha.6. complete.nxs.run4.t (ESS=706) 1.6 -1.2 -0.8 complete.nxs.run5.t (ESS=808) 1.6 -1.2 -0.8 -

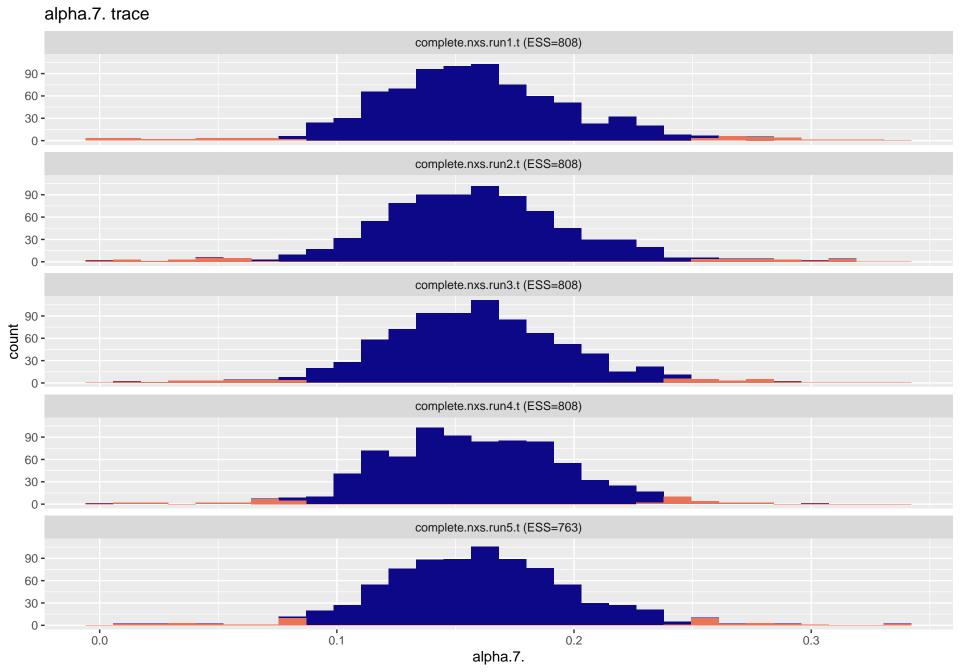
Generation



alpha.7. trace complete.nxs.run1.t (ESS=808) complete.nxs.run3.t (ESS=808) complete.nxs.run4.t (ESS=808)

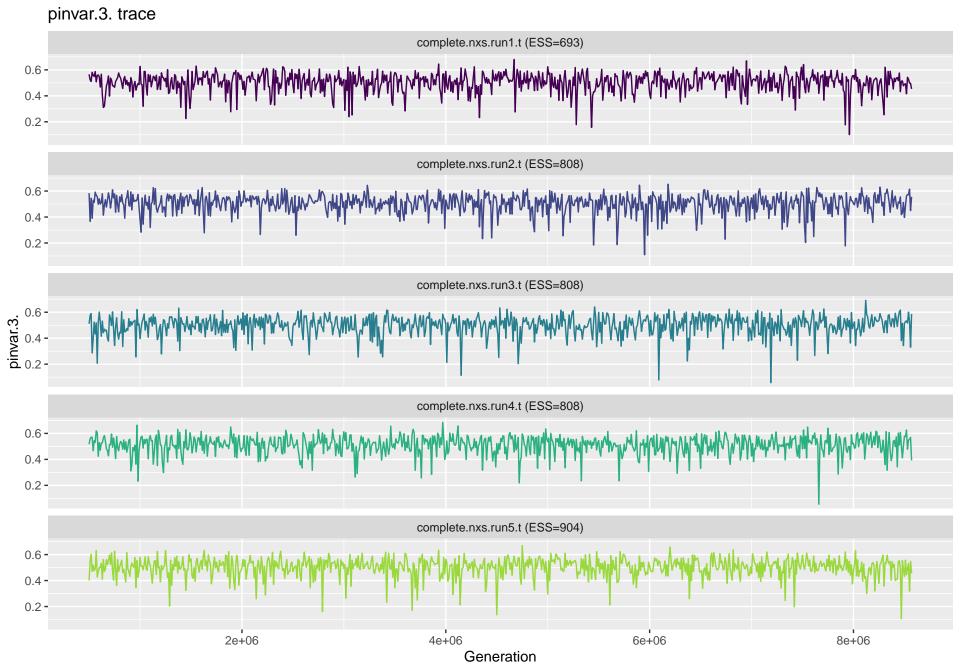
0.3 -0.2 -0.1 -

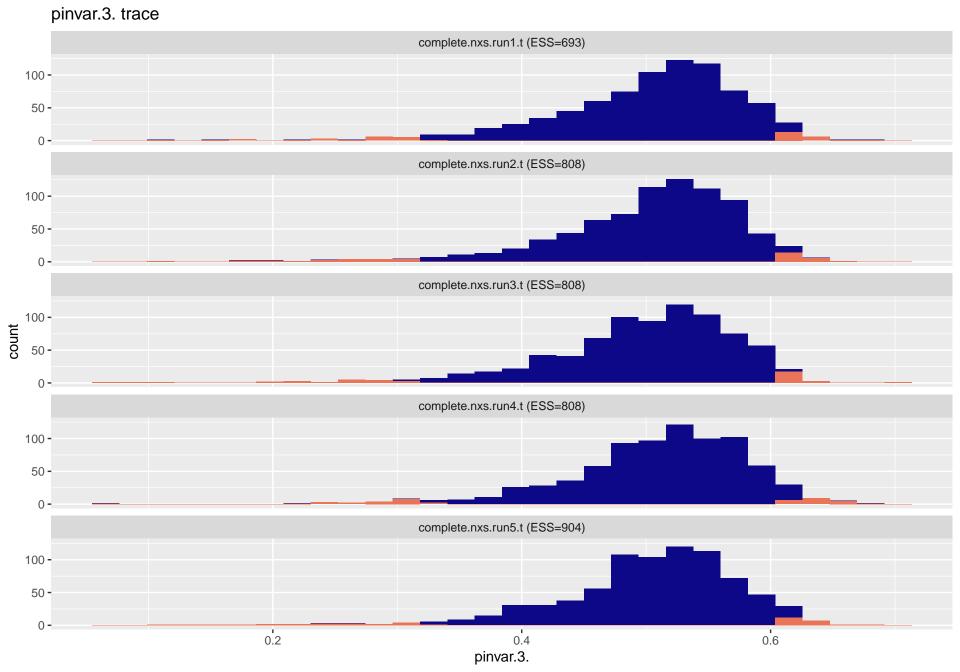


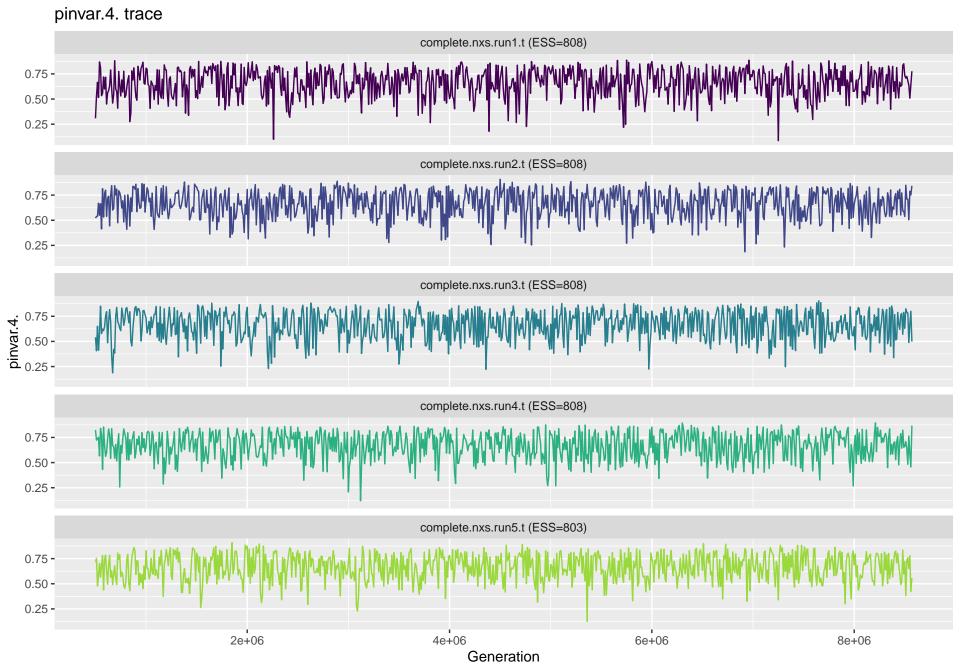


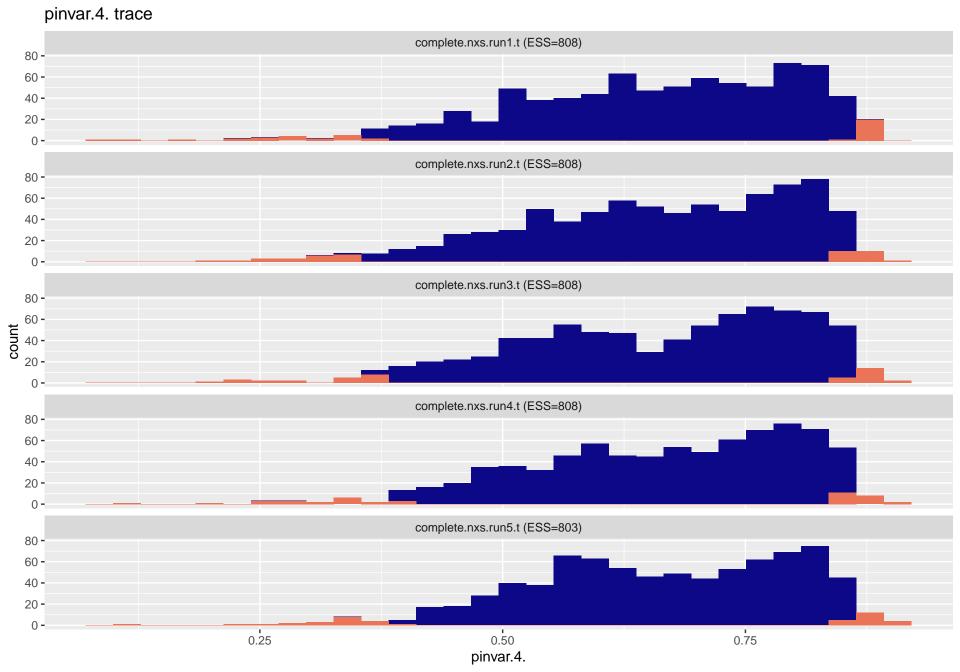
pinvar.1. trace complete.nxs.run1.t (ESS=808) 0.4 -0.2 -0.0 complete.nxs.run2.t (ESS=808) 0.4 -0.2 -0.0 complete.nxs.run3.t (ESS=808) binvar.1 0.4-0.0 complete.nxs.run4.t (ESS=724) 0.4 -0.2 -0.0 complete.nxs.run5.t (ESS=808) 0.4 -0.2 -0.0 -4e+06 6e+06 2e+06 8e+06 Generation

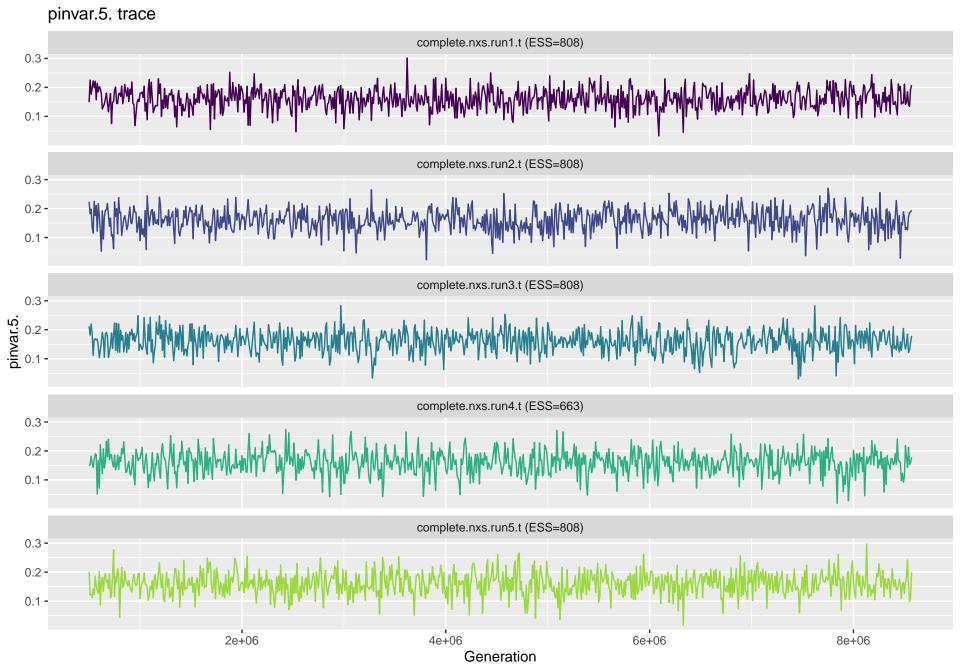
pinvar.1. trace complete.nxs.run1.t (ESS=808) 100 -75 **-**50 -25 -0 complete.nxs.run2.t (ESS=808) 100 -75 **-**50 **-**25 -0 complete.nxs.run3.t (ESS=808) 100 -75 count 50 -25 -0 complete.nxs.run4.t (ESS=724) 100 -75 **-**50 -25 -0 complete.nxs.run5.t (ESS=808) 100 -75 -50 -25 -0 -0.0 0.2 0.4 pinvar.1.











pinvar.5. trace complete.nxs.run1.t (ESS=808) 100 -75 -50 -25 -0 complete.nxs.run2.t (ESS=808) 100 -75 -50 -25 -0 complete.nxs.run3.t (ESS=808) 100 -75 count 50 **-**25 -0 complete.nxs.run4.t (ESS=663) 100 -75 **-**50 -25 -0 complete.nxs.run5.t (ESS=808) 100 -75 **-**50 -25 **-**0 -0.1 0.2 0.3 pinvar.5.

pinvar.8. trace complete.nxs.run1.t (ESS=808) 0.85 -0.80 -0.75 -0.70 -0.65 complete.nxs.run2.t (ESS=808) 0.85 -0.80 -0.75 -0.70 -0.65 complete.nxs.run3.t (ESS=808) 0.85 -0.80 - 0.75 - 0.70 -0.65 complete.nxs.run4.t (ESS=808) 0.85 **-**0.80 -0.75 -0.70 -0.65 complete.nxs.run5.t (ESS=808) 0.85 -0.80 -0.75 -0.70 -0.65 -4e+06 2e+06 6e+06 8e+06

Generation

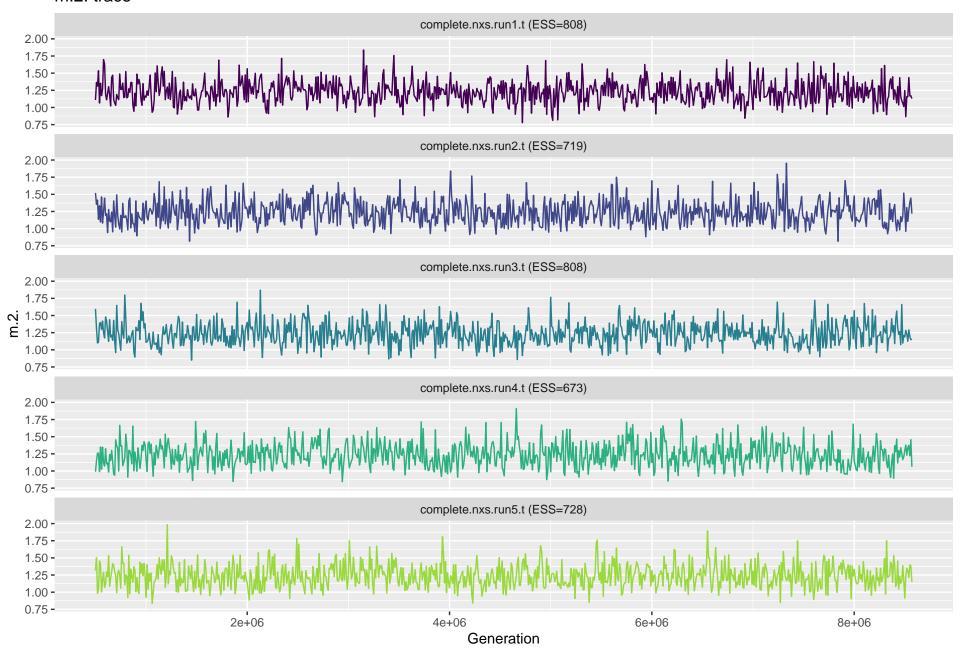
pinvar.8. trace complete.nxs.run1.t (ESS=808) 100 -75 -50 -25 -0 complete.nxs.run2.t (ESS=808) 100 -75 -50 -25 -0 complete.nxs.run3.t (ESS=808) 100 -75 count 50 **-**25 -0 complete.nxs.run4.t (ESS=808) 100 -75 **-**50 -25 -0 complete.nxs.run5.t (ESS=808) 100 -75 **-**50 -25 -0 -0.75 0.65 0.70 0.80 0.85 pinvar.8.

m.1. trace complete.nxs.run1.t (ESS=808) 0.7 -0.6 -0.5 -0.4 -0.3 -0.2 complete.nxs.run2.t (ESS=808) 0.7 -0.6 -0.5 -0.4 -0.3 -0.2 complete.nxs.run3.t (ESS=808) 0.7 -0.6 -0.5 **-**0.3 -0.2 complete.nxs.run4.t (ESS=808) 0.7 -0.6 -0.5 -0.4 -0.3 -0.2 complete.nxs.run5.t (ESS=808) 0.7 -0.6 -0.5 -0.4 -0.3 -0.2 -4e+06 2e+06 6e+06 8e+06 Generation

m.1. trace complete.nxs.run1.t (ESS=808) 75 -50 -25 -0 complete.nxs.run2.t (ESS=808) 75 **-**50 -25 **-**0 complete.nxs.run3.t (ESS=808) 75 **-**75 -50 -25 -0 complete.nxs.run4.t (ESS=808) 75 **-**50 **-**25 -0 complete.nxs.run5.t (ESS=808) 75 **-**50 -25 **-**0-0.3 0.4 0.6 0.7 0.5

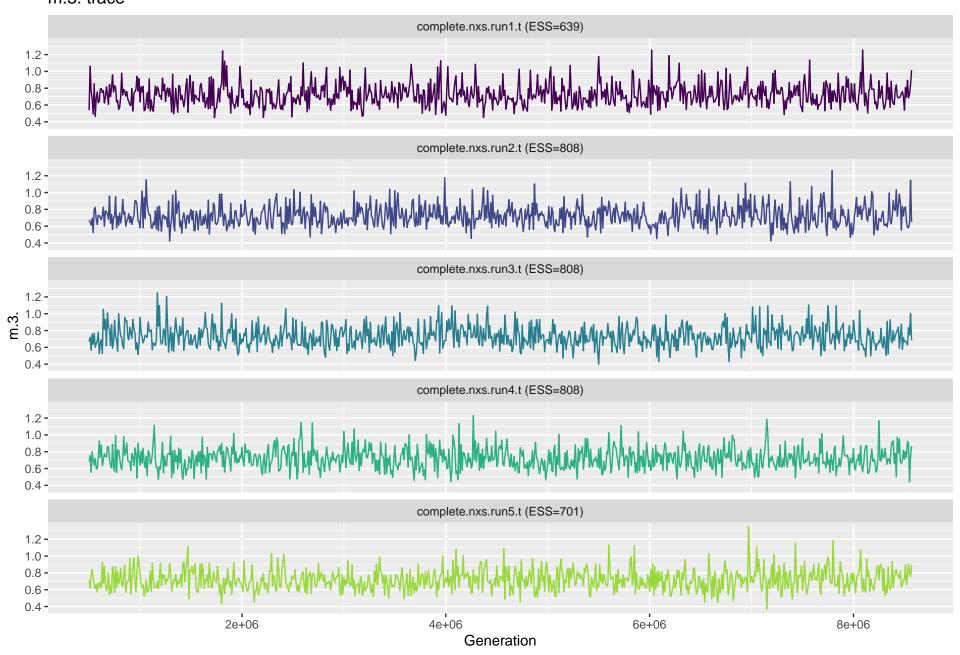
m.1.

m.2. trace



m.2. trace complete.nxs.run1.t (ESS=808) 75 -50 **-**25 -0 complete.nxs.run2.t (ESS=719) 75 **-**50 -25 -0 complete.nxs.run3.t (ESS=808) 75 ontros ₅₀ - ₂₅ -0 complete.nxs.run4.t (ESS=673) 75 **-**50 -25 -0 complete.nxs.run5.t (ESS=728) 75 **-**50 -25 -0 -0.8 1.2 2.0 1.6 m.2.

m.3. trace

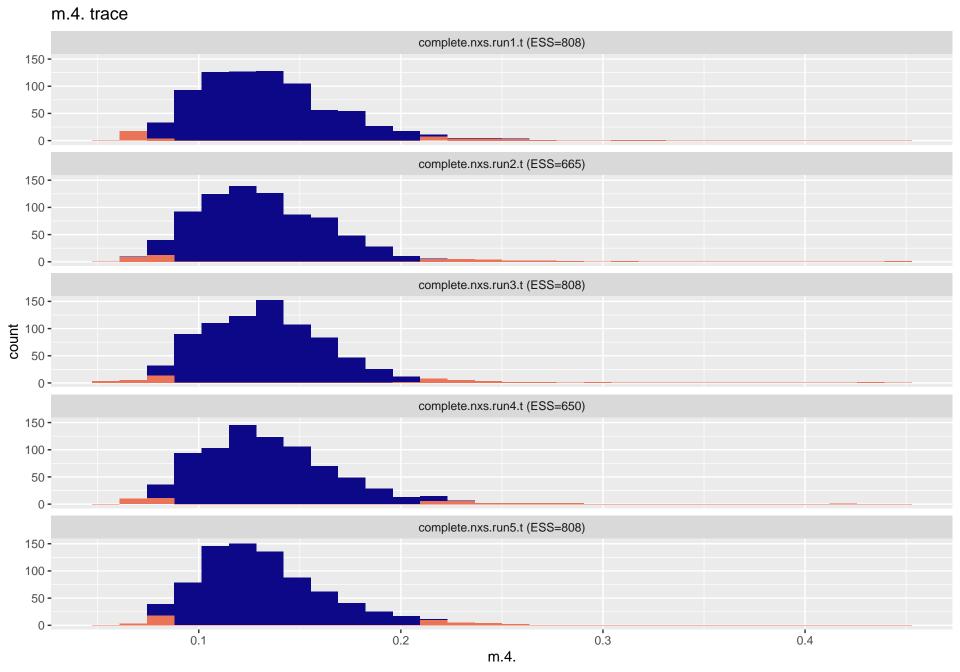


m.3. trace complete.nxs.run1.t (ESS=639) 90 -60 -30 -0 complete.nxs.run2.t (ESS=808) 90 -60 **-**30 -0 complete.nxs.run3.t (ESS=808) 90 contraction 30 -0 complete.nxs.run4.t (ESS=808) 90 -60 -30 -0 complete.nxs.run5.t (ESS=701) 90 -60 -30 -0 -0.6 0.9 1.2

m.3.

m.4. trace





4 -3 **-**7. 3-4 -3 -4 -3 **-**4e+06 Generation

4 -

3 -

m.5. trace complete.nxs.run1.t (ESS=652) 75 **-**50 -25 **-**0 complete.nxs.run2.t (ESS=765) 75 **-**50 -25 -0 complete.nxs.run3.t (ESS=808) 75 **-**50 - 25 -0 complete.nxs.run4.t (ESS=808) 75 **-**50 -25 -0 complete.nxs.run5.t (ESS=725) 75 -50 **-**25 **-**

m.5.

3

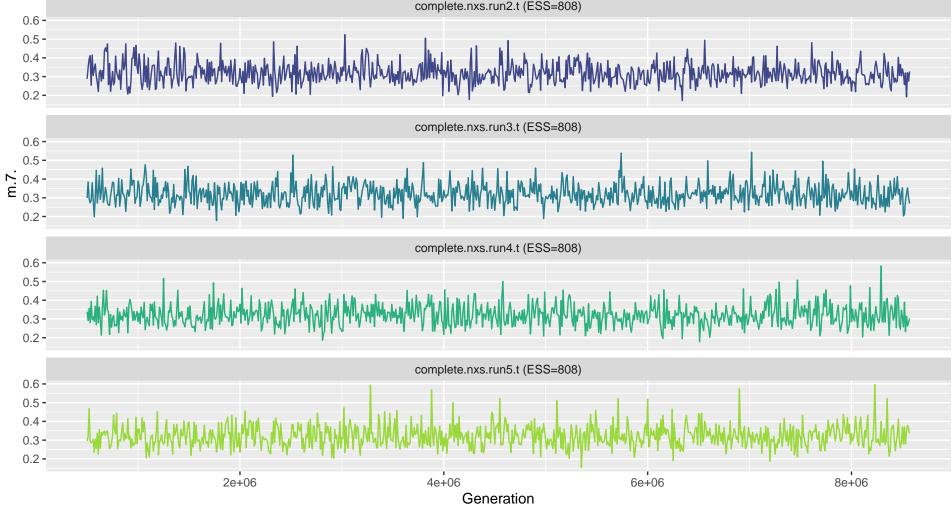
0 -

m.6. trace complete.nxs.run1.t (ESS=808) 2.5 -2.0 -1.5 complete.nxs.run2.t (ESS=711) 2.5 -2.0 -1.5 complete.nxs.run3.t (ESS=808) 2.5 -9 E 2.0 -1.5 complete.nxs.run4.t (ESS=808) 2.5 -2.0 -1.5 complete.nxs.run5.t (ESS=933) 2.5 -2.0 -1.5 -4e+06 2e+06 6e+06 8e+06

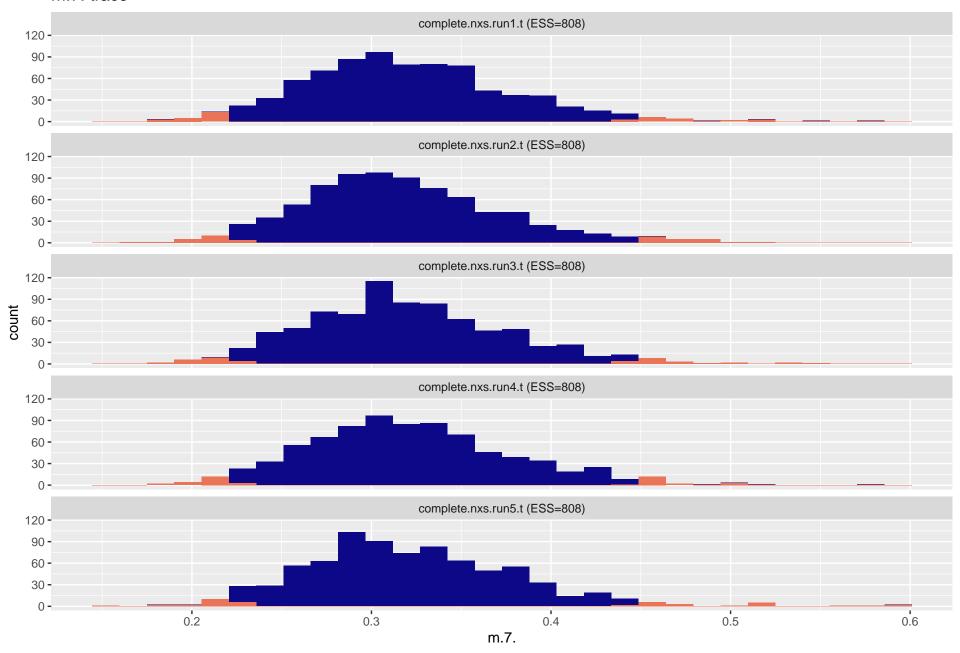
Generation

m.6. trace complete.nxs.run1.t (ESS=808) 100 -75 **-**50 -25 -0 complete.nxs.run2.t (ESS=711) 100 -75 **-**50 -25 -0 complete.nxs.run3.t (ESS=808) 100 -75 count 50 **-**25 -0 complete.nxs.run4.t (ESS=808) 100 -75 **-**50 -25 -0 complete.nxs.run5.t (ESS=933) 100 -75 **-**50 -25 -0 -1.5 3.0 2.0 2.5 m.6.

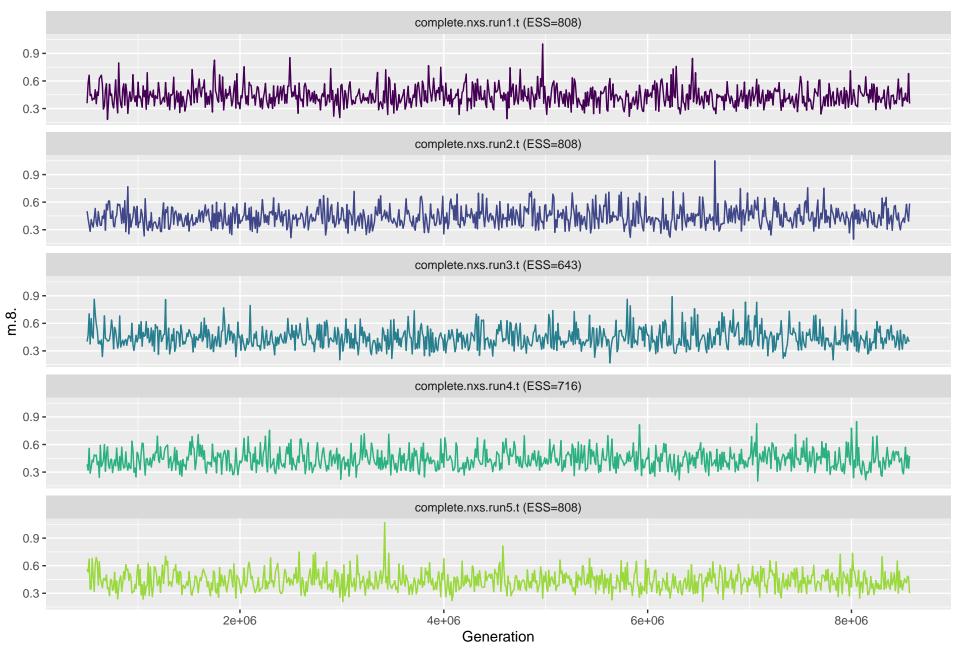
m.7. trace complete.nxs.run1.t (ESS=808) 0.6 -0.5 - $\frac{1}{2} \left(\frac{1}{2} \left$ 0.4 -0.3 -0.2 complete.nxs.run2.t (ESS=808) complete.nxs.run3.t (ESS=808) complete.nxs.run4.t (ESS=808)



m.7. trace

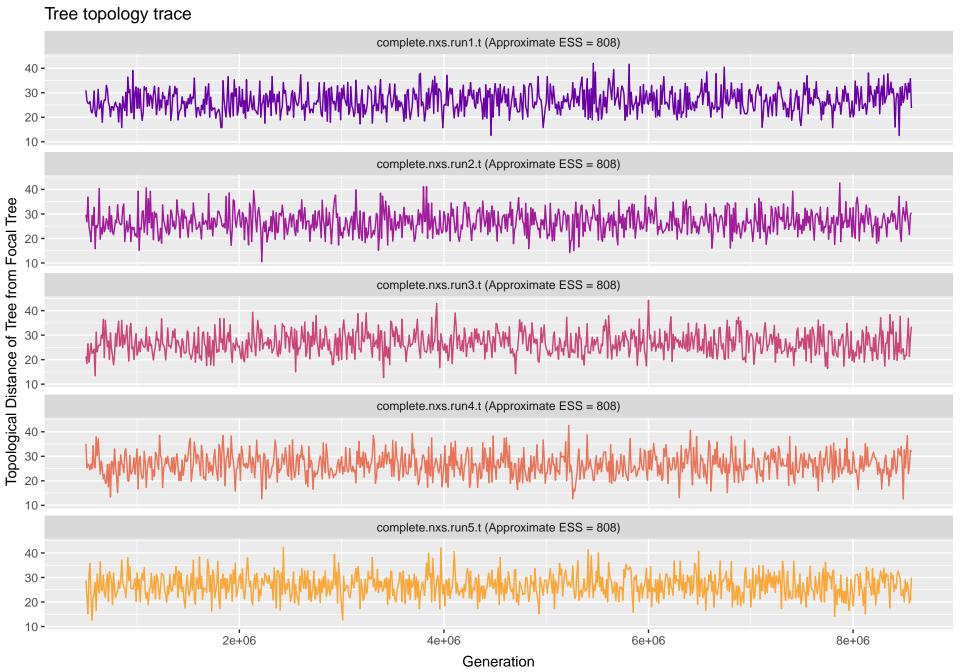


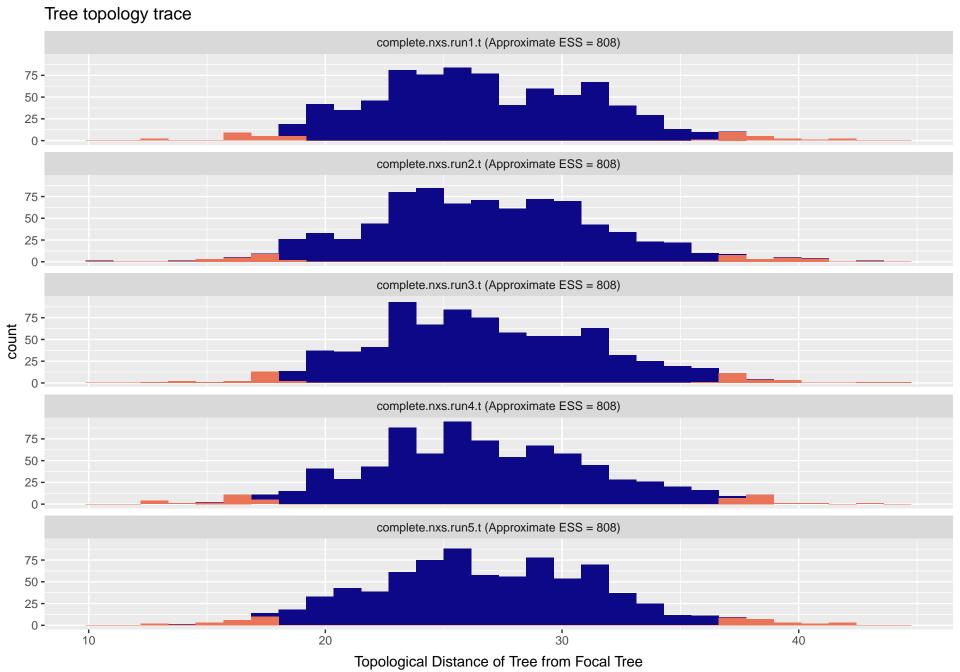
m.8. trace



m.8. trace complete.nxs.run1.t (ESS=808) 100 -75 **-**50 -25 -0 complete.nxs.run2.t (ESS=808) 100 -75 **-**50 -25 -0 complete.nxs.run3.t (ESS=643) 100 count 75 **-**50 -25 **-**0 complete.nxs.run4.t (ESS=716) 100 -75 **-**50 -25 -0 complete.nxs.run5.t (ESS=808) 100 -75 **-**50 -25 -0 -0.3 0.9 0.6

m.8.





complete.nxs.run1.t LnL LnPr topological.distance 80 -60 -40 -20 -75 **-**70 -65 **-**60 -55 **-**70 topological.distance 65 **-**60 -55 **-**

75

70

60

-10400 -10390 -10380 -10370 -10360 -1035055

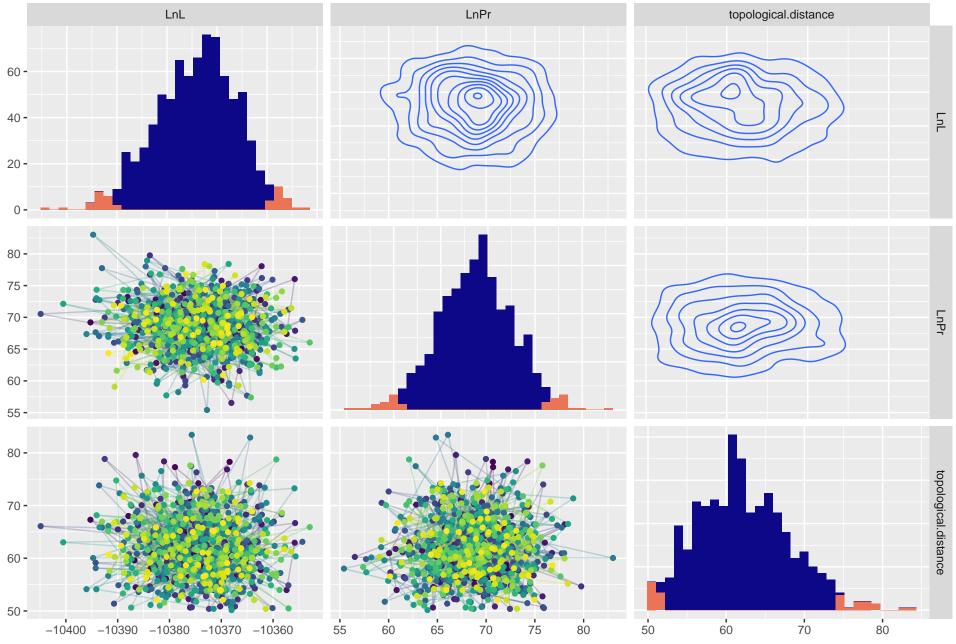
65

60

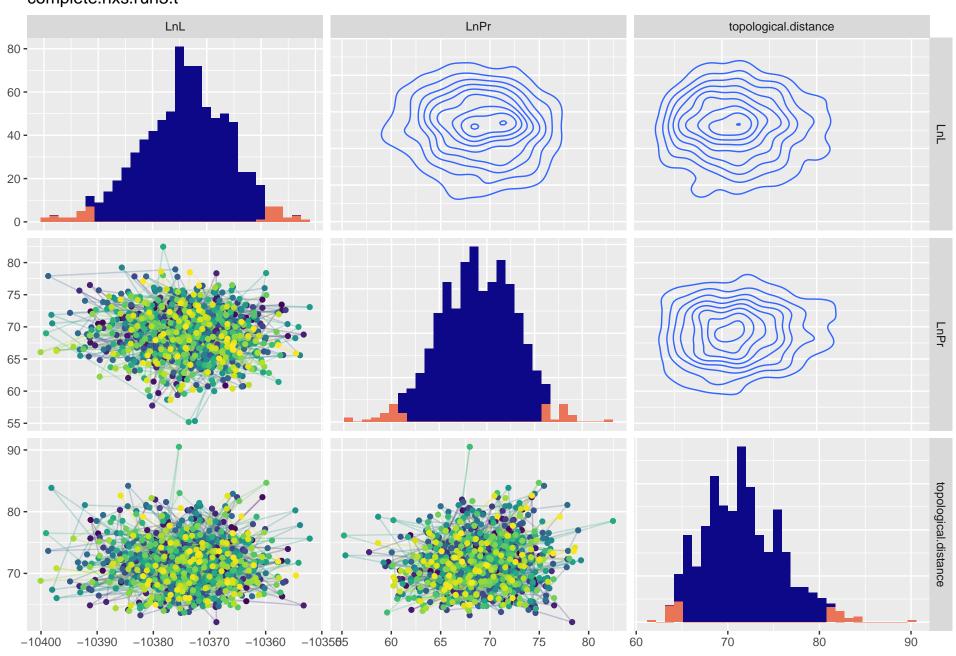
55

70

complete.nxs.run2.t



complete.nxs.run3.t



complete.nxs.run4.t LnL LnPr topological.distance 80 -60 **-**40 -20 -80 -70 **-**60 -75 **-**70 topological.distance 65 **-**60 **-**

70

60

-10400 -10390 -10380 -10370 -10360 -10350

60

80

50

70

complete.nxs.run5.t LnL LnPr topological.distance 80 -60 **-**40 -20 -80 -70 -60 **-**80 topological.distance 75 **-**70 -65 **-**

70

60

65

80

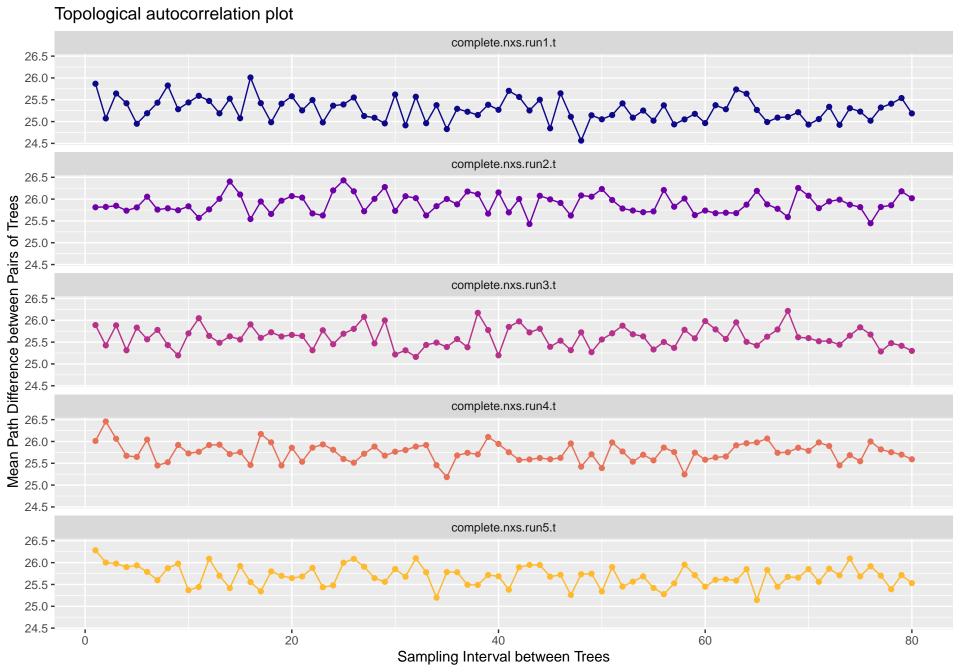
70

80

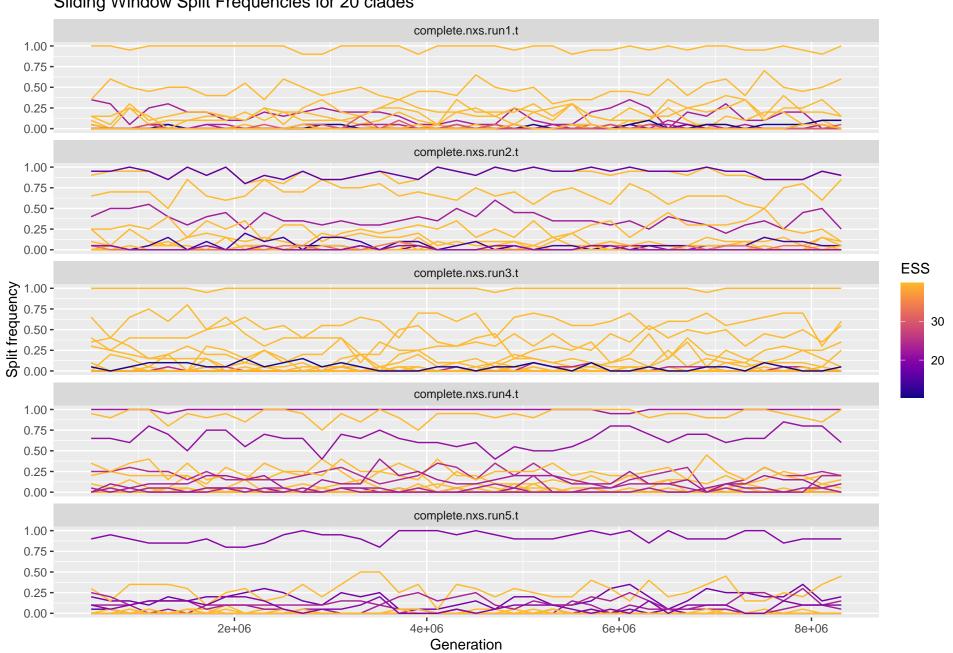
75

60 **-**

-10400 -10390 -10380 -10370 -10360 -10350



Sliding Window Split Frequencies for 20 clades



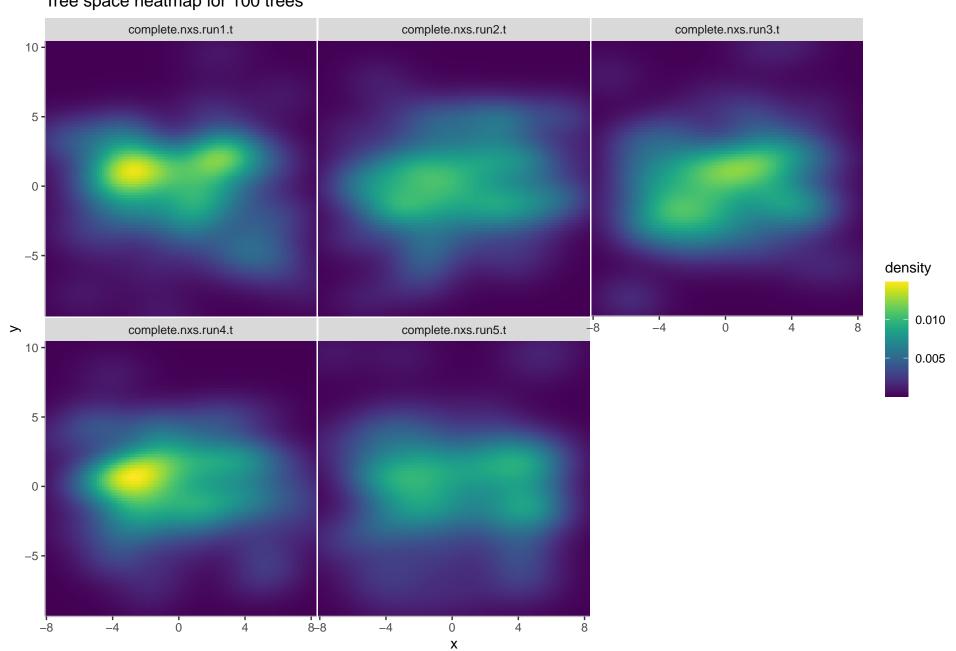
Sliding window Change in Split Frequencies complete.nxs.run1.t 0.6 -0.4 -0.2 -0.0 complete.nxs.run2.t 0.6 -0.4 -0.2 -Change in Split Frequency complete.nxs.run3.t complete.nxs.run4.t 0.4 -0.2 -0.0 complete.nxs.run5.t 0.6 -0.4 -0.2 -0.0 -2e+06 4e+06 6e+06 8e+06 Generation

Cumulative Split Frequencies for 20 clades complete.nxs.run1.t 0.75 -0.50 -0.25 -0.00 complete.nxs.run2.t 0.75 -0.50 -0.25 -0.00 -**WCSF** complete.nxs.run3.t Split Frequency 0.50 -0.25 -0.00 -0.09 0.08 0.07 0.06 complete.nxs.run4.t 0.75 -0.50 -0.25 -0.00 complete.nxs.run5.t 0.75 -0.50 -0.25 -0.00 -2e+06 4e+06 6e+06 8e+06

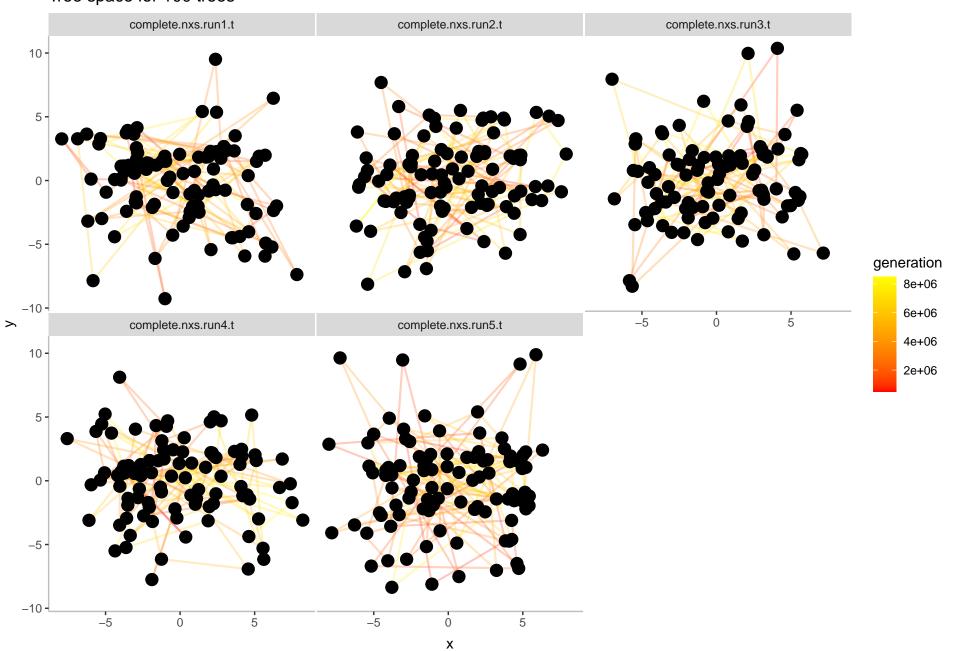
Generation

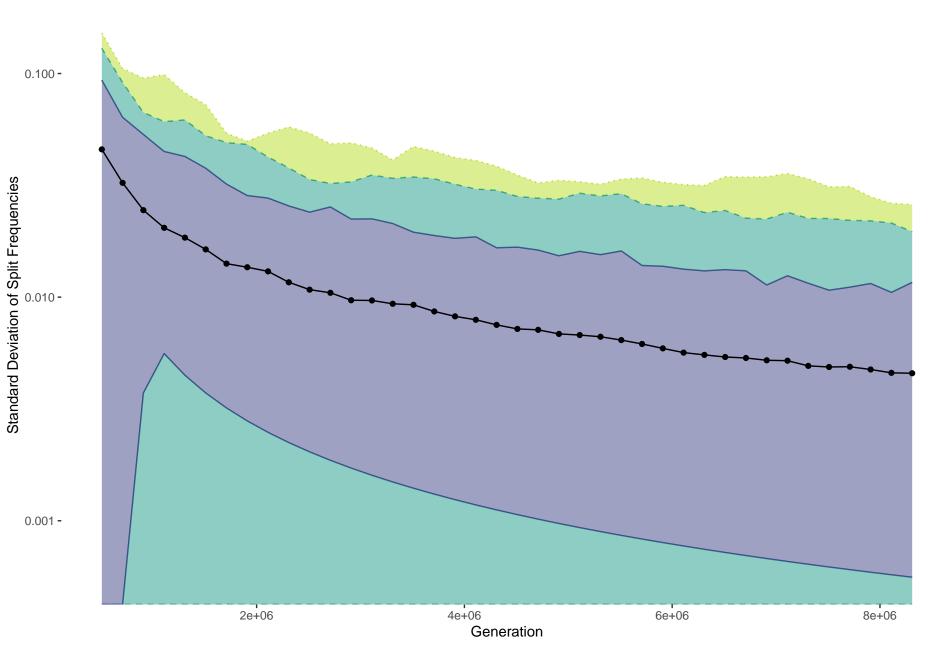
Cumulative Change in Split Frequencies complete.nxs.run1.t 0.020 -0.015 -0.010 -0.005 -0.000 complete.nxs.run2.t 0.020 -0.015 -0.010 -0.005 -Change in Split Frequency 0.000 - 0.00 complete.nxs.run3.t complete.nxs.run4.t 0.015 -0.010 -0.005 -0.000 complete.nxs.run5.t 0.020 -0.015 -0.010 -0.005 -0.000 -2e+06 4e+06 6e+06 8e+06 Generation

Tree space heatmap for 100 trees



Tree space for 100 trees





Split frequency comparisons

