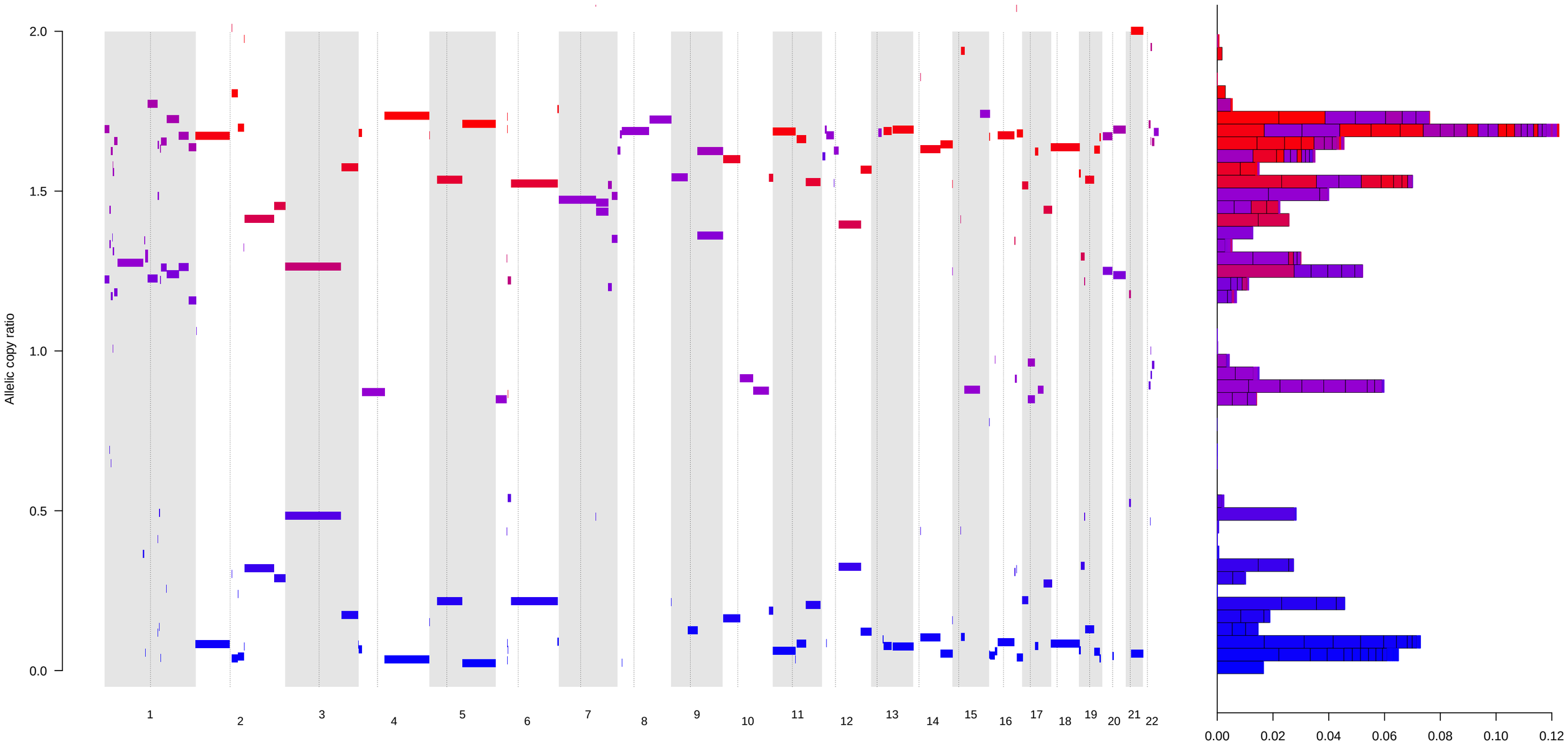
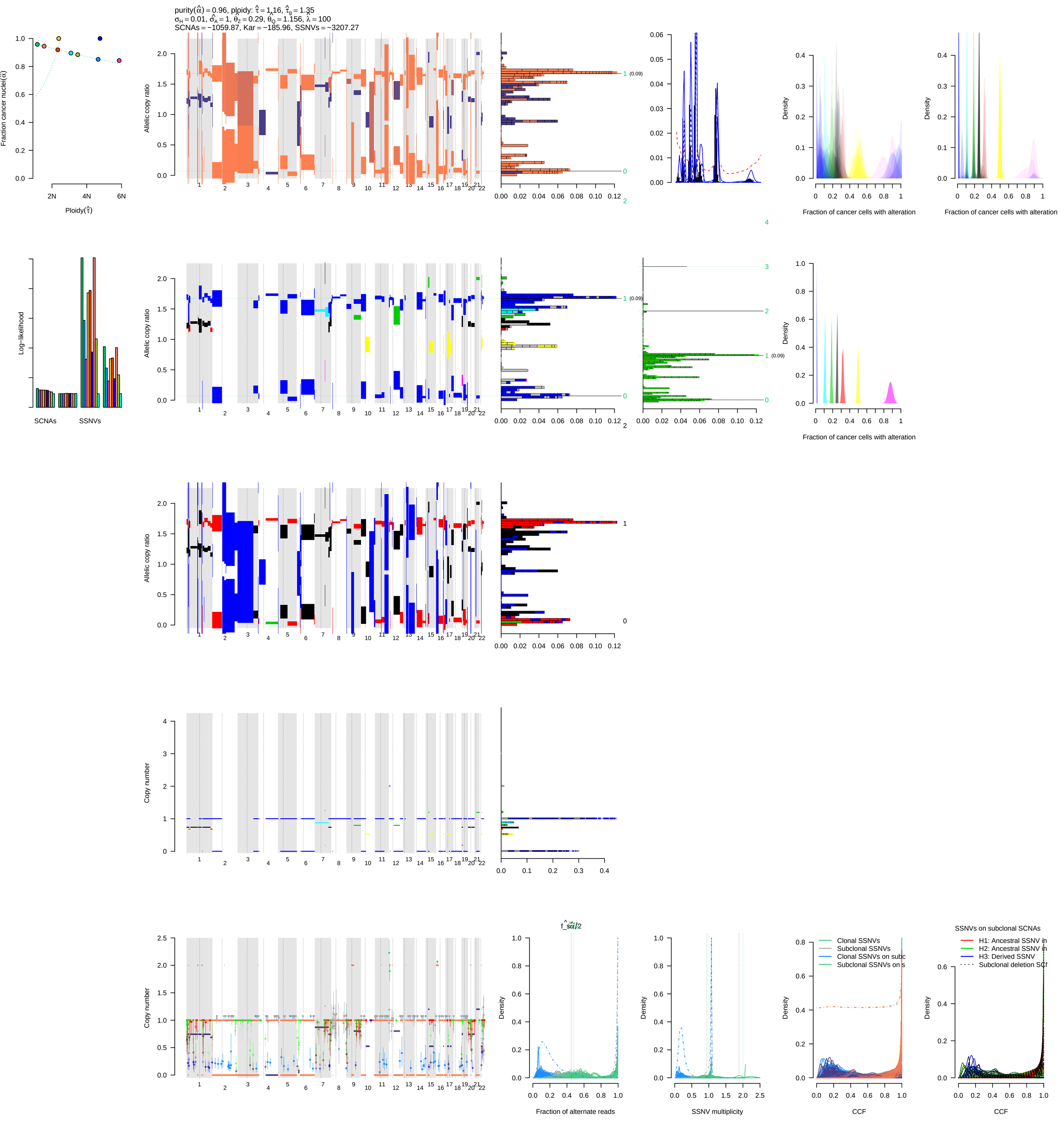
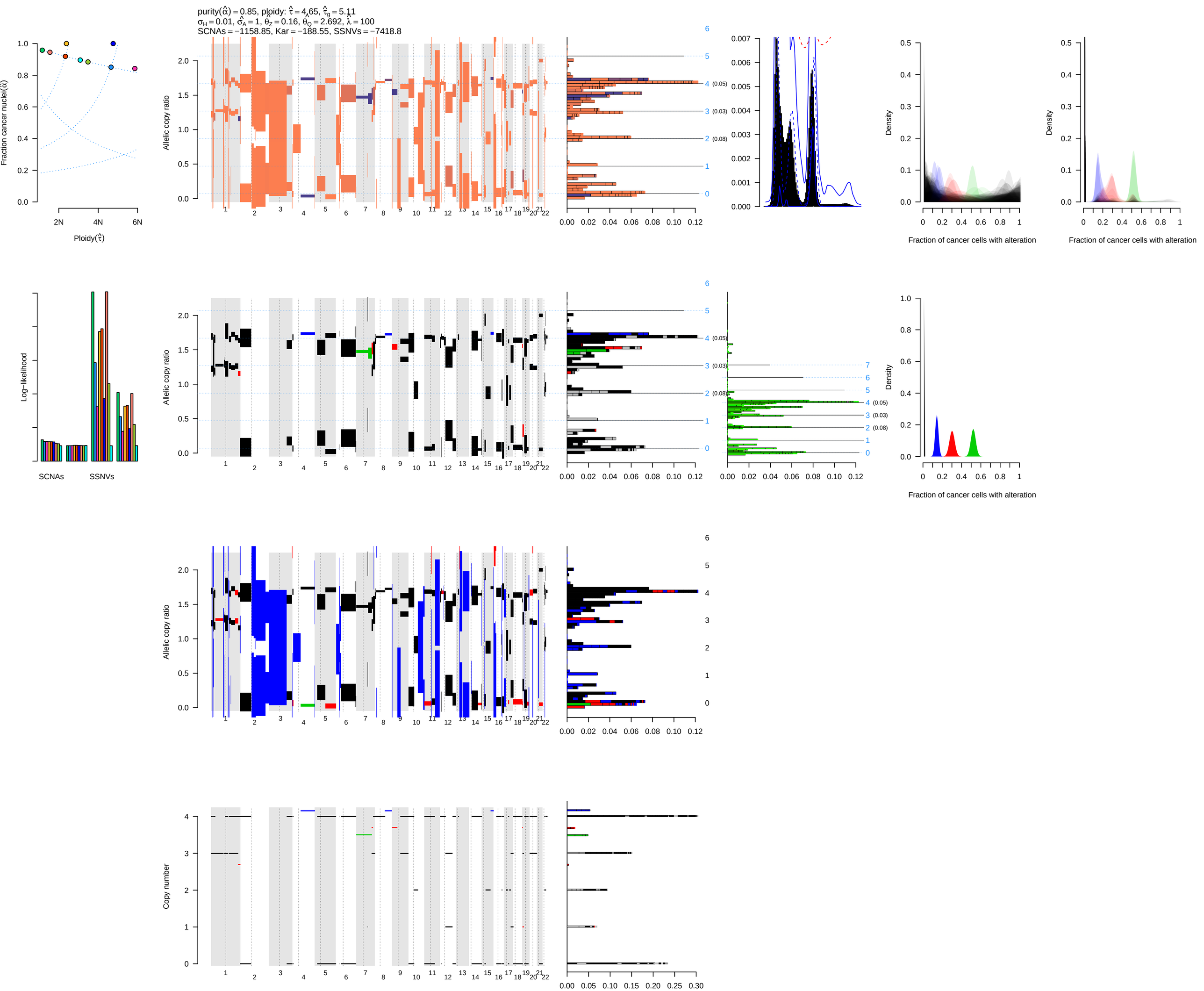
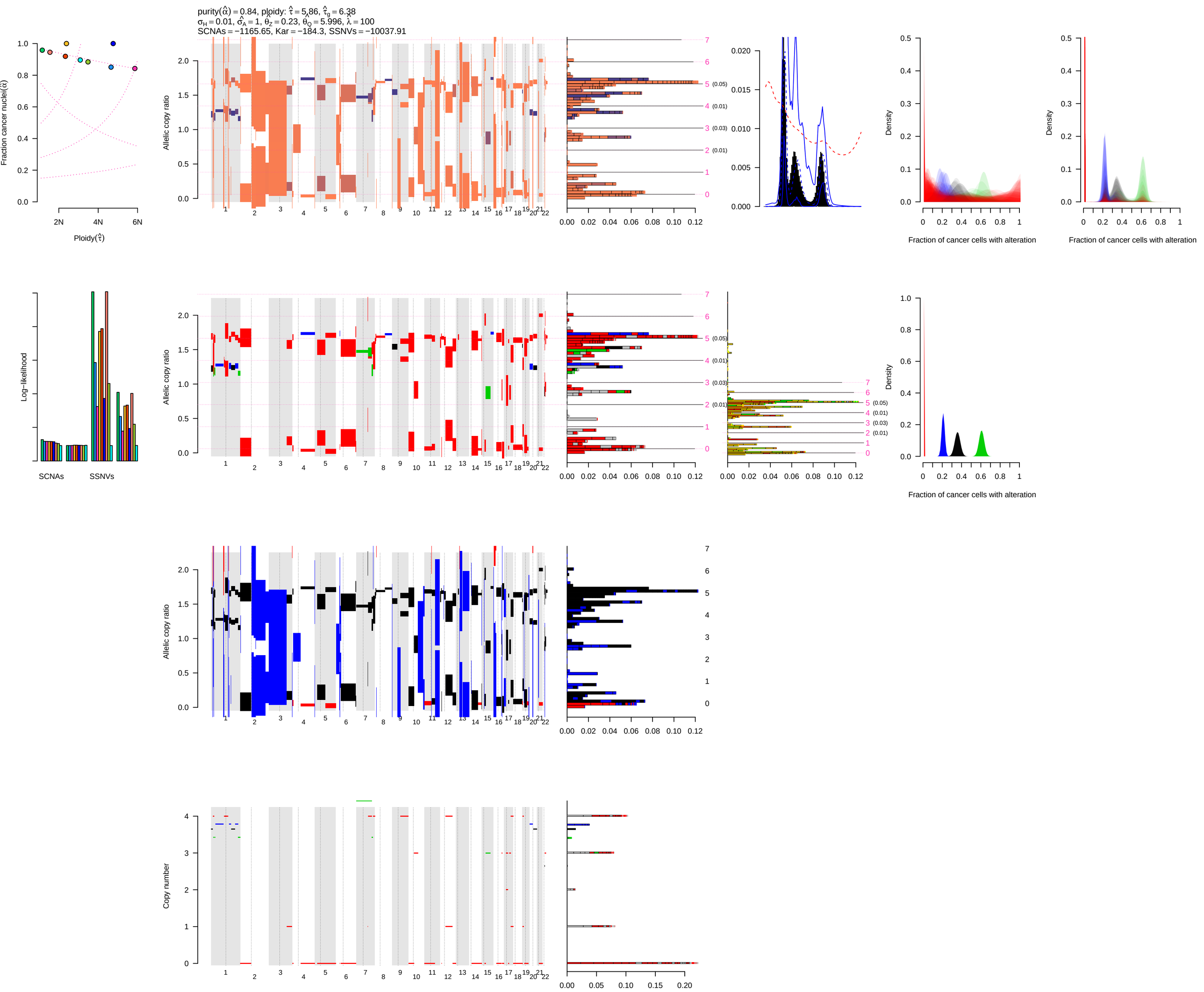
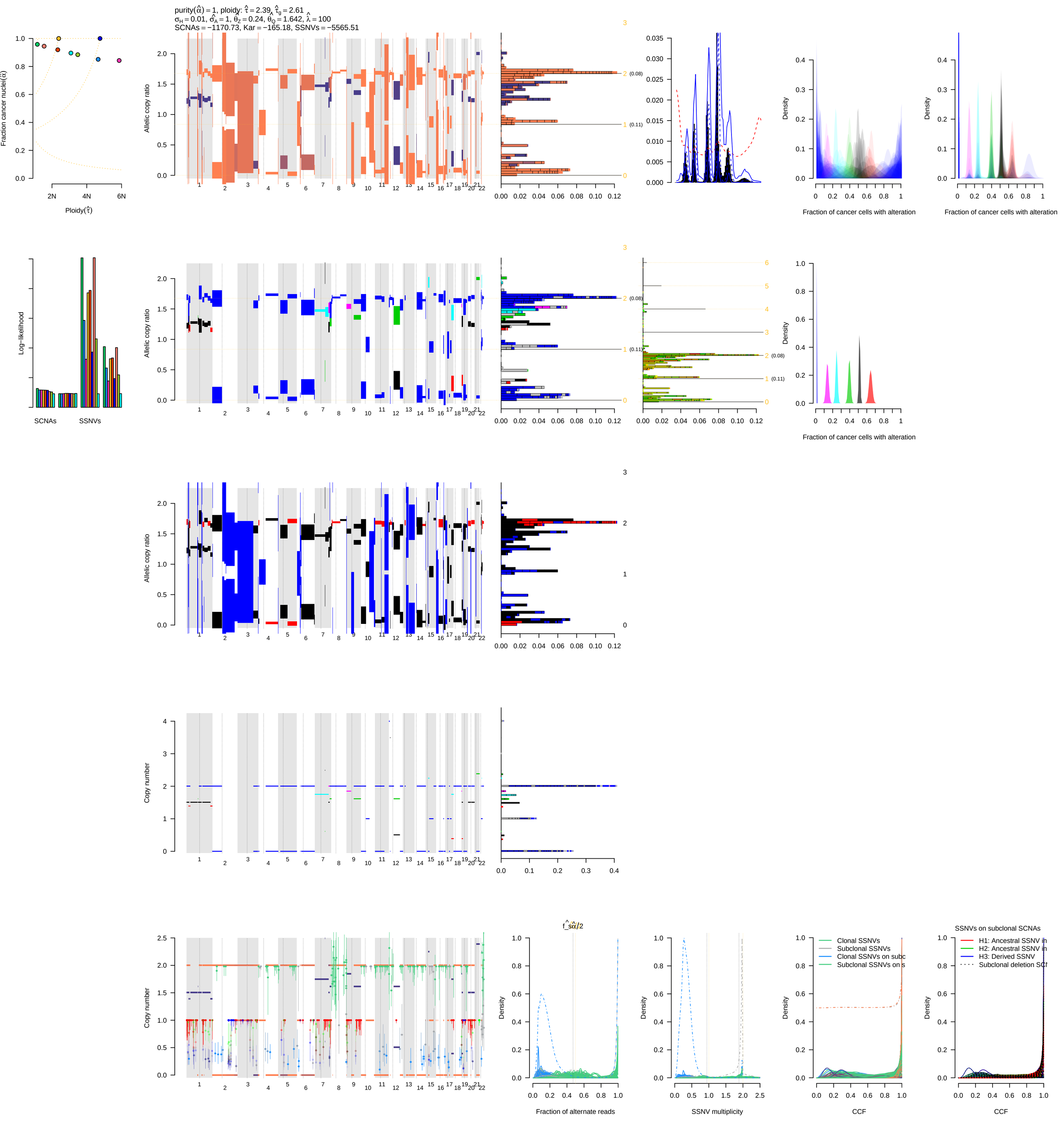
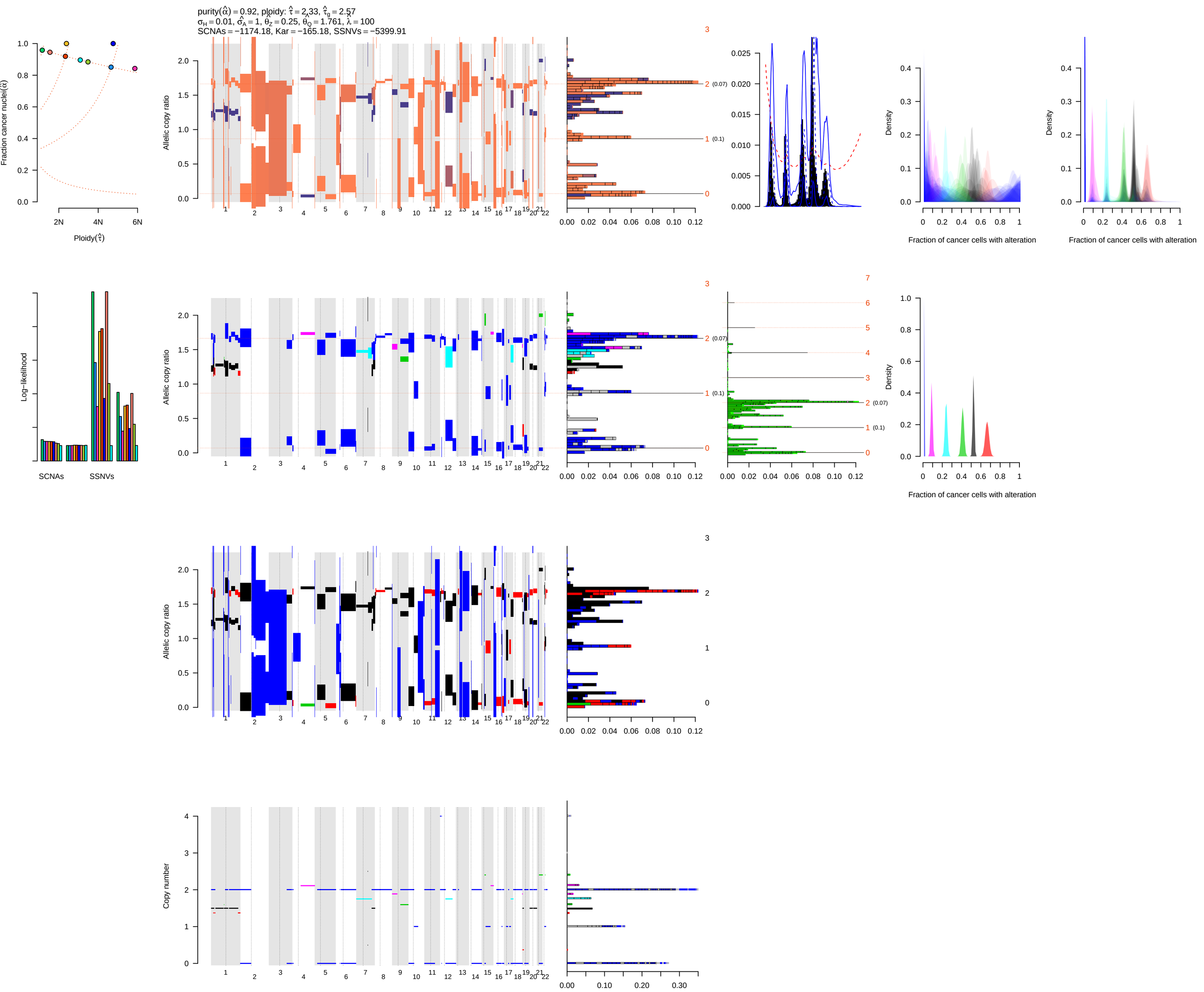

Allelic copy ratio
2.0
1.5
1.0
0.5
0.0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
0.00
0.02
0.04
0.06
0.08
0.10
0.12

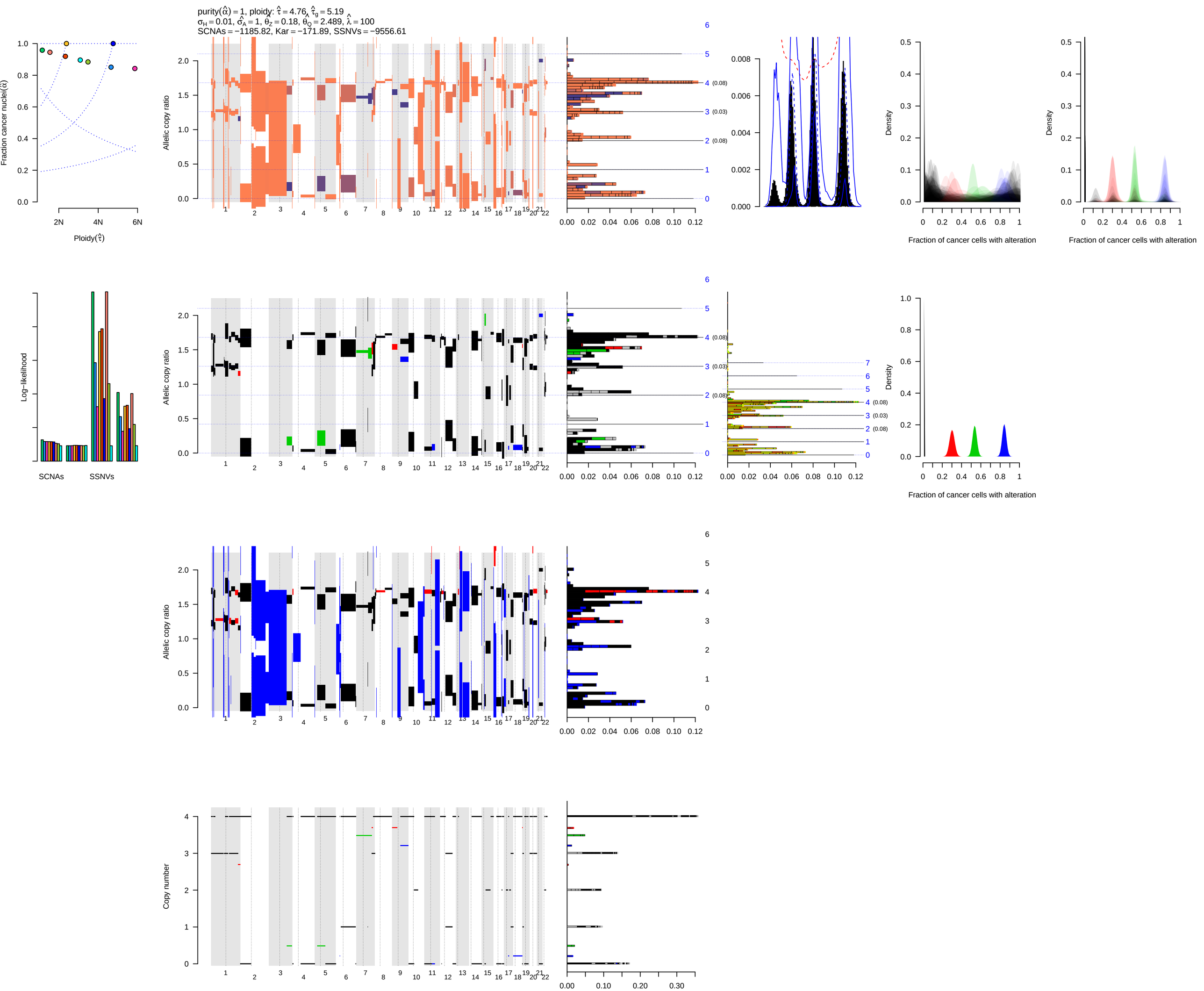

purity($\hat{\alpha}$) = 0.96, ploidy: $\hat{\tau}$ = 1.16, $\hat{\tau}_g$ = 1.35
σ_H = 0.01, $\hat{\sigma}_A$ = 1, θ_Z = 0.29, θ_Q = 1.156, $\hat{\lambda}$ = 100
SCNAs = −1059.87, Kar = −185.96, SSNVs = −3207.27
Fraction cancer nuclei($\hat{\alpha}$)
Ploidy($\hat{\tau}$)
Allelic copy ratio
Density
Fraction of cancer cells with alteration
Log−likelihood
SCNAs
SSNVs
Copy number
f_sc/2
Fraction of alternate reads
SSNV multiplicity
CCF
SSNVs on subclonal SCNAs
Clonal SSNVs
Subclonal SSNVs
Clonal SSNVs on subc
Subclonal SSNVs on s
H1: Ancestral SSNV in
H2: Ancestral SSNV in
H3: Derived SSNV
Subclonal deletion SCN

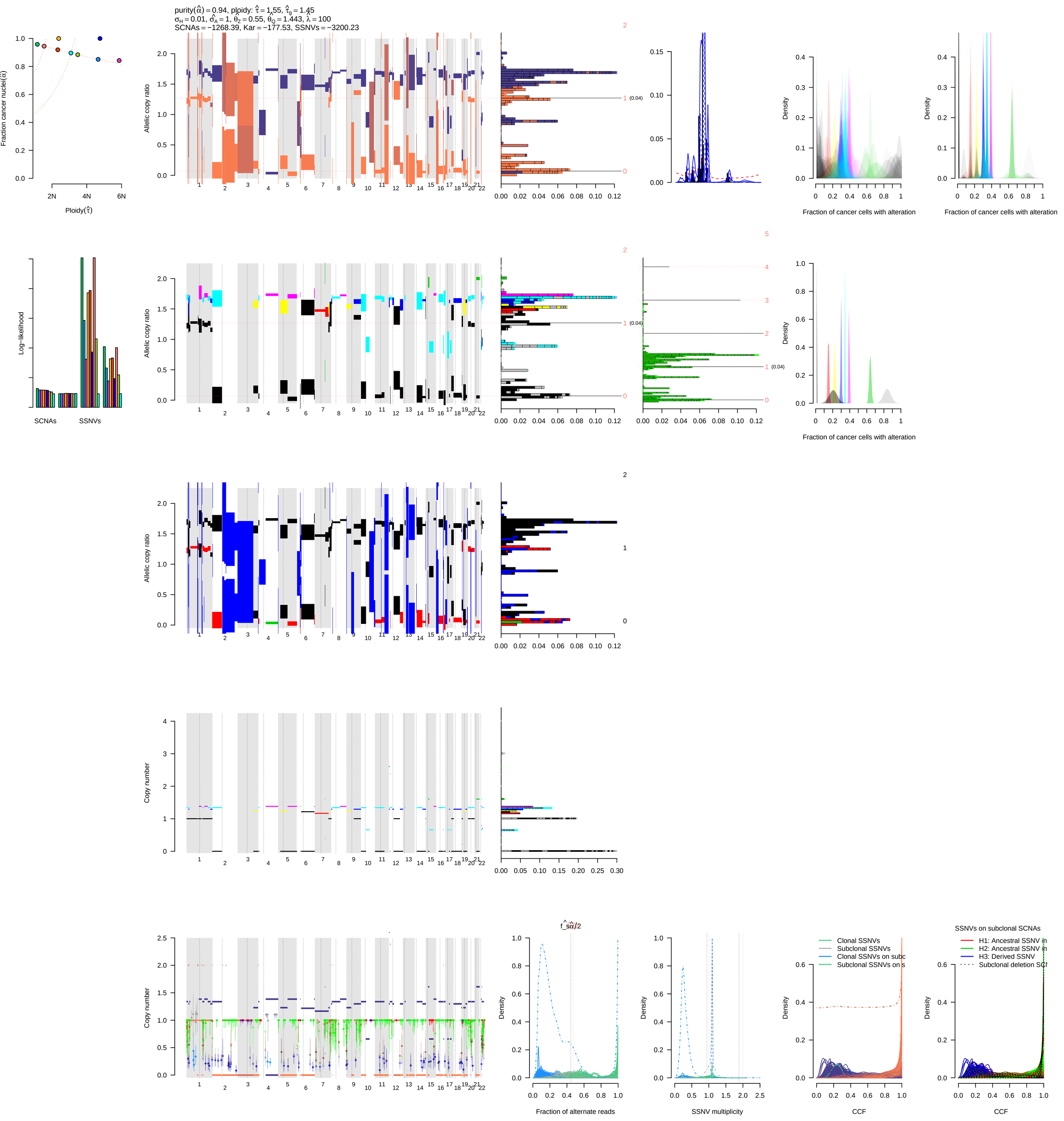

purity($\hat{\alpha}$) = 0.85, ploidy: $\hat{\tau}$ = 4.65, $\hat{\tau}_g$ = 5.11
σ_H = 0.01, $\hat{\sigma}_A$ = 1, θ_Z = 0.16, θ_Q = 2.692, $\hat{\lambda}$ = 100
SCNAs = −1158.85, Kar = −188.55, SSNVs = −7418.8
Fraction cancer nuclei($\hat{\alpha}$)
Ploidy($\hat{\tau}$)
Allelic copy ratio
Density
Fraction of cancer cells with alteration
Log−likelihood
SCNAs
SSNVs
Copy number
f_s
Fraction of alternate reads
SSNV multiplicity
CCF
Clonal SSNVs
Subclonal SSNVs
Clonal SSNVs on subc
Subclonal SSNVs on s
SSNVs on subclonal SCNAs
H1: Ancestral SSNV in
H2: Ancestral SSNV in
H3: Derived SSNV
Subclonal deletion SCI

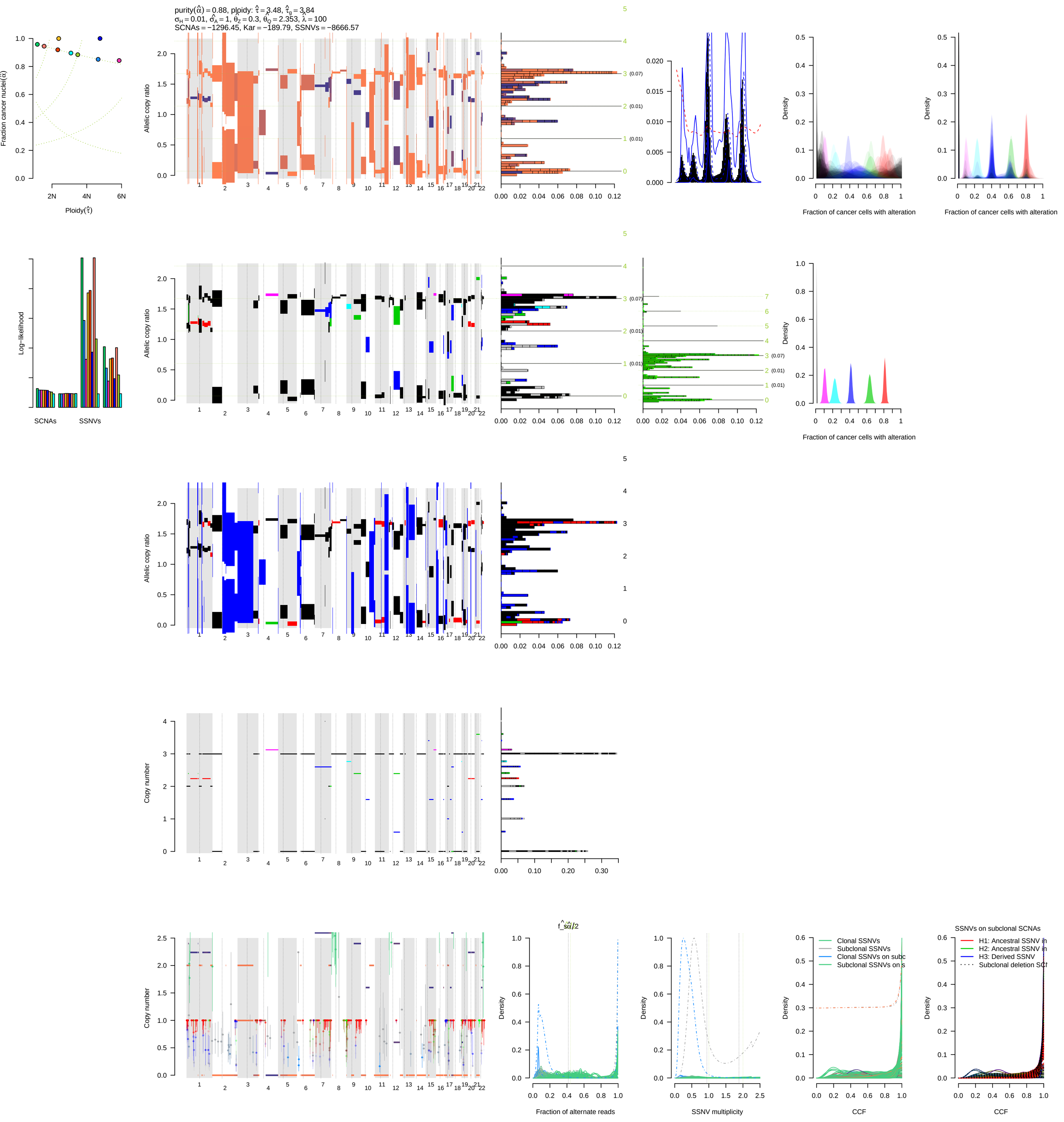

purity($\hat{\alpha}$) = 0.84, ploidy: $\hat{\tau}$ = 5.86, $\hat{\tau}_g$ = 6.38
σ_H = 0.01, $\hat{\sigma}_A$ = 1, θ_Z = 0.23, θ_Q = 5.996, $\hat{\lambda}$ = 100
SCNAs = −1165.65, Kar = −184.3, SSNVs = −10037.91
Fraction cancer nuclei($\hat{\alpha}$)
Ploidy($\hat{\tau}$)
Allelic copy ratio
Density
Fraction of cancer cells with alteration
Log−likelihood
SCNAs
SSNVs
Copy number
f_s
Fraction of alternate reads
SSNV multiplicity
CCF
SSNVs on subclonal SCNAs
Clonal SSNVs
Subclonal SSNVs
Clonal SSNVs on subc
Subclonal SSNVs on s
H1: Ancestral SSNV in
H2: Ancestral SSNV in
H3: Derived SSNV
Subclonal deletion SCN

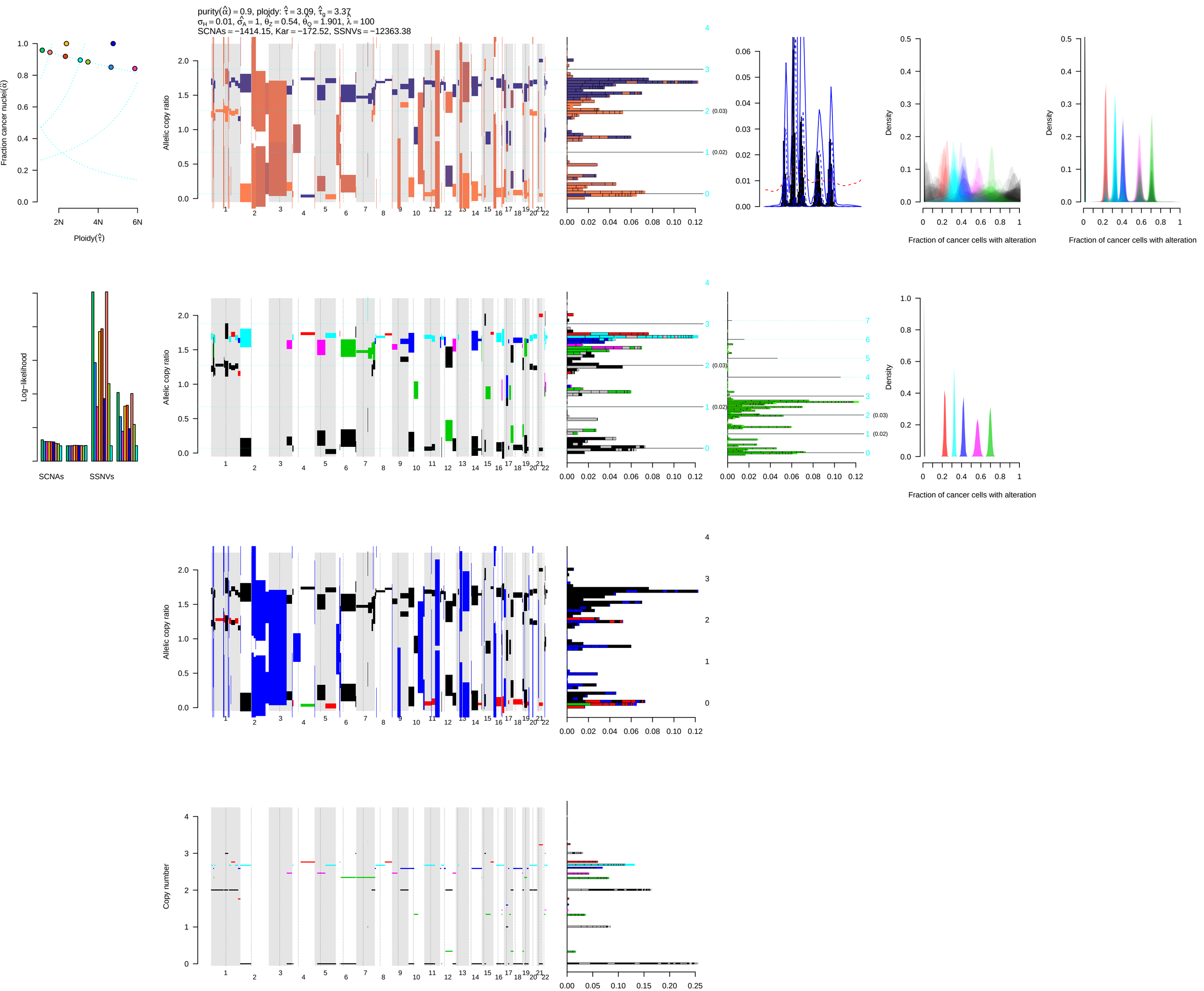

purity($\hat{\alpha}$) = 1, ploidy: $\hat{\tau}$ = 2.39, $\hat{\tau}_g$ = 2.61
σ_H = 0.01, $\hat{\sigma}_A$ = 1, θ_Z = 0.24, θ_Q = 1.642, $\hat{\lambda}$ = 100
SCNAs = −1170.73, Kar = −165.18, SSNVs = −5565.51
Fraction cancer nuclei($\hat{\alpha}$)
Ploidy($\hat{\tau}$)
Allelic copy ratio
Density
Fraction of cancer cells with alteration
Log−likelihood
SCNAs
SSNVs
Copy number
f_s$\hat{\alpha}$/2
Fraction of alternate reads
SSNV multiplicity
CCF
Clonal SSNVs
Subclonal SSNVs
Clonal SSNVs on subc
Subclonal SSNVs on s
SSNVs on subclonal SCNAs
H1: Ancestral SSNV in
H2: Ancestral SSNV in
H3: Derived SSNV
Subclonal deletion SCI


purity($\hat{\alpha}$) = 0.92, ploidy: $\hat{\tau}$ = 2.33, $\hat{\tau}_g$ = 2.57
σ_H = 0.01, $\hat{\sigma}_A$ = 1, θ_Z = 0.25, θ_Q = 1.761, $\hat{\lambda}$ = 100
SCNAs = −1174.18, Kar = −165.18, SSNVs = −5399.91
Fraction cancer nuclei($\hat{\alpha}$)
Ploidy($\hat{\tau}$)
Allelic copy ratio
Density
Fraction of cancer cells with alteration
Log−likelihood
SCNAs
SSNVs
Copy number
f_^sa/2
Fraction of alternate reads
SSNV multiplicity
CCF
SSNVs on subclonal SCNAs
Clonal SSNVs
Subclonal SSNVs
Clonal SSNVs on subc
Subclonal SSNVs on s
H1: Ancestral SSNV in
H2: Ancestral SSNV in
H3: Derived SSNV
Subclonal deletion SCI


purity($\hat{\alpha}$) = 1, ploidy: $\hat{\tau}$ = 4.76, $\hat{\tau}_g$ = 5.19
σ_H = 0.01, $\hat{\sigma}_A$ = 1, θ_Z = 0.18, θ_Q = 2.489, $\hat{\lambda}$ = 100
SCNAs = −1185.82, Kar = −171.89, SSNVs = −9556.61
Fraction cancer nuclei($\hat{\alpha}$)
Ploidy($\hat{\tau}$)
Allelic copy ratio
Density
Fraction of cancer cells with alteration
Log−likelihood
SCNAs
SSNVs
Copy number
f_sol
Fraction of alternate reads
SSNV multiplicity
CCF
Clonal SSNVs
Subclonal SSNVs
Clonal SSNVs on subc
Subclonal SSNVs on s
SSNVs on subclonal SCNAs
H1: Ancestral SSNV in
H2: Ancestral SSNV in
H3: Derived SSNV
Subclonal deletion SCI


purity($\hat{\alpha}$) = 0.94, ploidy: $\hat{\tau}$ = 1.55, $\hat{\tau}_g$ = 1.45
σ_H = 0.01, $\hat{\sigma}_A$ = 1, θ_Z = 0.55, θ_Q = 1.443, $\hat{\lambda}$ = 100
SCNAs = −1268.39, Kar = −177.53, SSNVs = −3200.23
Fraction cancer nuclei($\hat{\alpha}$)
Ploidy($\hat{\tau}$)
Allelic copy ratio
Density
Fraction of cancer cells with alteration
Log−likelihood
SCNAs
SSNVs
Copy number
f_s$\hat{\alpha}$/2
Fraction of alternate reads
SSNV multiplicity
CCF
SSNVs on subclonal SCNAs
Clonal SSNVs
Subclonal SSNVs
Clonal SSNVs on subc
Subclonal SSNVs on s
H1: Ancestral SSNV in
H2: Ancestral SSNV in
H3: Derived SSNV
Subclonal deletion SCI


purity($\hat{\alpha}$) = 0.88, ploidy: $\hat{\tau}$ = 3.48, $\hat{\tau}_g$ = 3.84
σ_H = 0.01, $\hat{\sigma}_A$ = 1, θ_Z = 0.3, θ_Q = 2.353, $\hat{\lambda}$ = 100
SCNAs = −1296.45, Kar = −189.79, SSNVs = −8666.57
Fraction cancer nuclei($\hat{\alpha}$)
Ploidy($\hat{\tau}$)
Allelic copy ratio
Density
Fraction of cancer cells with alteration
Log−likelihood
SCNAs
SSNVs
Copy number
$\hat{f}_{s\hat{\alpha}}/2$
Fraction of alternate reads
SSNV multiplicity
CCF
SSNVs on subclonal SCNAs
Clonal SSNVs
Subclonal SSNVs
Clonal SSNVs on subc
Subclonal SSNVs on s
H1: Ancestral SSNV in
H2: Ancestral SSNV in
H3: Derived SSNV
Subclonal deletion SCI


purity($\hat{\alpha}$) = 0.9, ploidy: $\hat{\tau}$ = 3.09, $\hat{\tau}_g$ = 3.37
σ_H = 0.01, $\hat{\sigma}_A$ = 1, θ_Z = 0.54, θ_Q = 1.901, $\hat{\lambda}$ = 100
SCNAs = −1414.15, Kar = −172.52, SSNVs = −12363.38
Fraction cancer nuclei($\hat{\alpha}$)
Ploidy($\hat{\tau}$)
Allelic copy ratio
Density
Fraction of cancer cells with alteration
Log−likelihood
SCNAs
SSNVs
Copy number
$\hat{f}_s\hat{\alpha}/2$
Fraction of alternate reads
SSNV multiplicity
CCF
SSNVs on subclonal SCNAs
Clonal SSNVs
Subclonal SSNVs
Clonal SSNVs on subc
Subclonal SSNVs on s
H1: Ancestral SSNV in
H2: Ancestral SSNV in
H3: Derived SSNV
Subclonal deletion SCI