StanResultsSummary

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Summary of Stan Model Fit Results: Full-Scale (850K sites)
Inverse-Gamma priors (using exact inv-gamma fits)
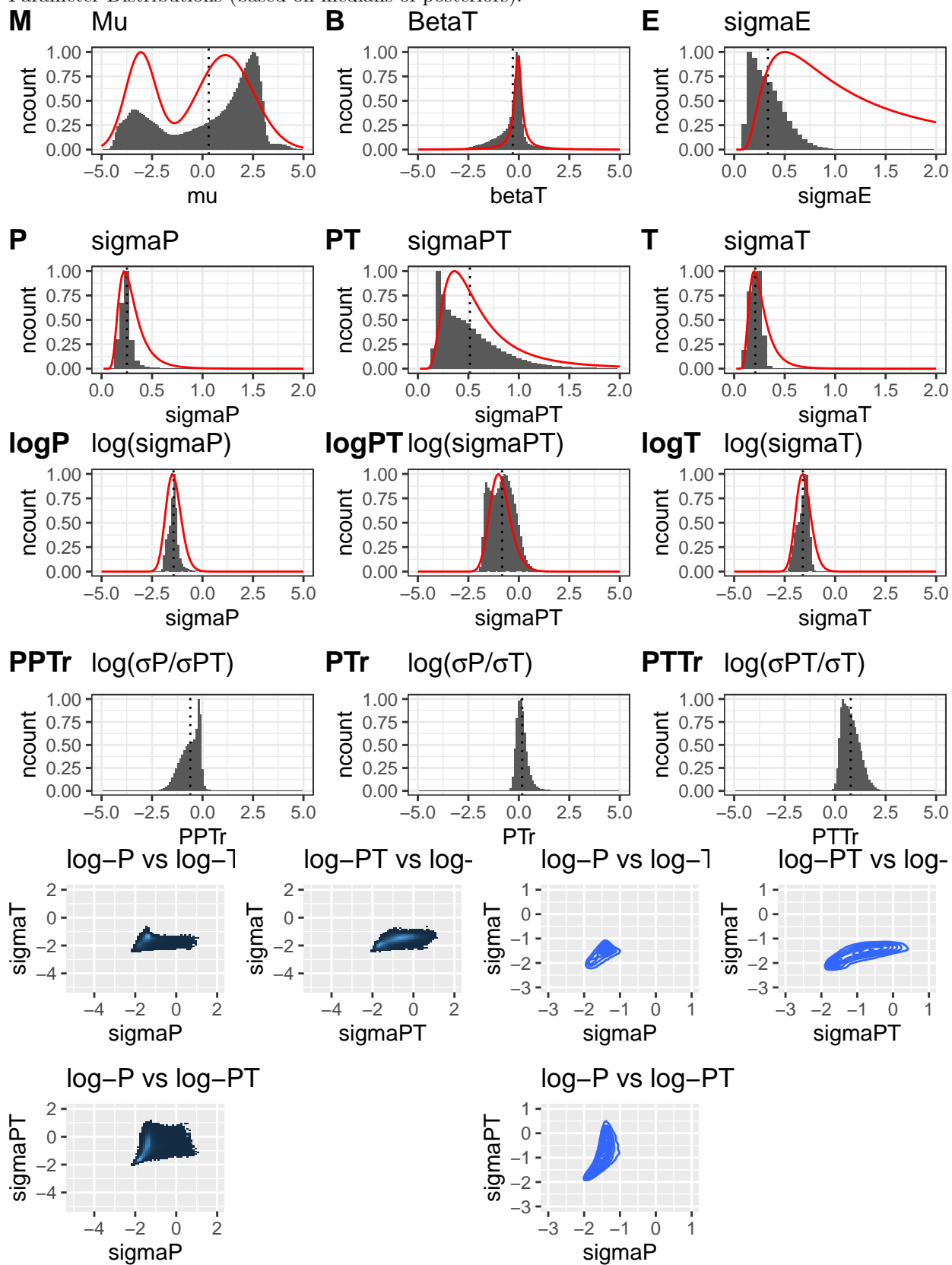
n_eff + Rhat Summary:

	Avg n_eff	Min n_eff	< Site	# <500	% <500	# <100	% <100
mu	3933.73	3.11	525490	988	0.11	104	0.01
betaT	3720.73	4.15	525490	437	0.05	29	0.00
sigmaP	1741.07	2.83	525490	14649	1.69	278	0.03
sigmaPT	2690.40	3.06	525490	2744	0.32	165	0.02
sigmaT	800.64	7.04	570532	280355	32.37	3009	0.35
sigmaE	1274.92	7.93	570532	77641	8.96	881	0.10
lp___	776.41	13.96	854143	180096	20.79	327	0.04

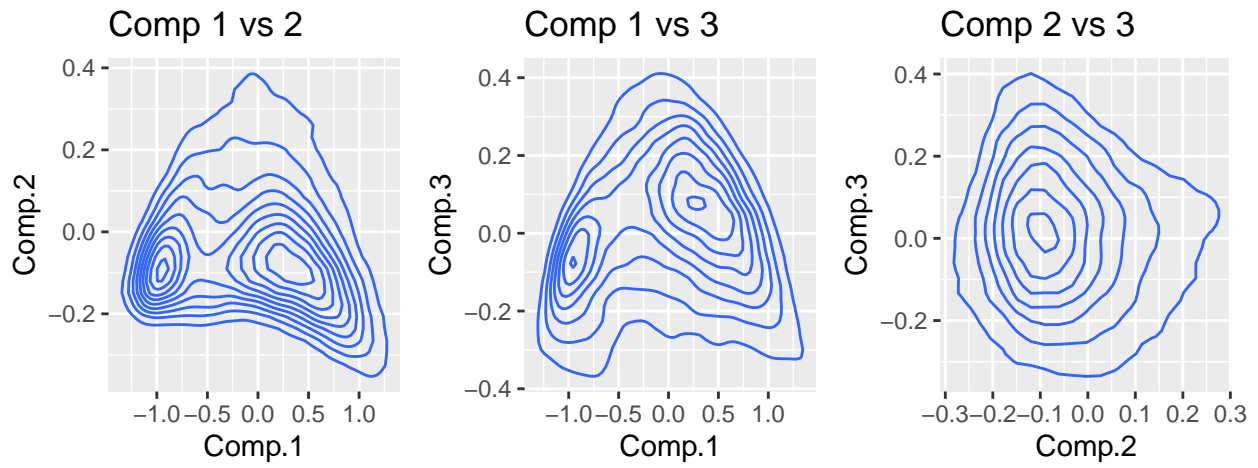|	Avg Rhat	Max Rhat	< Site	# >1.1	% >1.1	# >1.01	% >1.01
mu	1.00	2.01	525490	32	0.00	824	0.10
betaT	1.00	1.45	525490	4	0.00	506	0.06
sigmaP	1.00	2.44	525490	73	0.01	16032	1.85
sigmaPT	1.00	2.23	827025	39	0.00	2286	0.26
sigmaT	1.01	1.21	570532	66	0.01	197178	22.77
sigmaE	1.00	1.29	287316	27	0.00	49971	5.77
lp___	1.01	1.10	854143	0	0.00	186065	21.48

[1] "Problem sites: 525490 570532 854143 827025 287316"

Parameter Distributions (based on medians of posteriors):

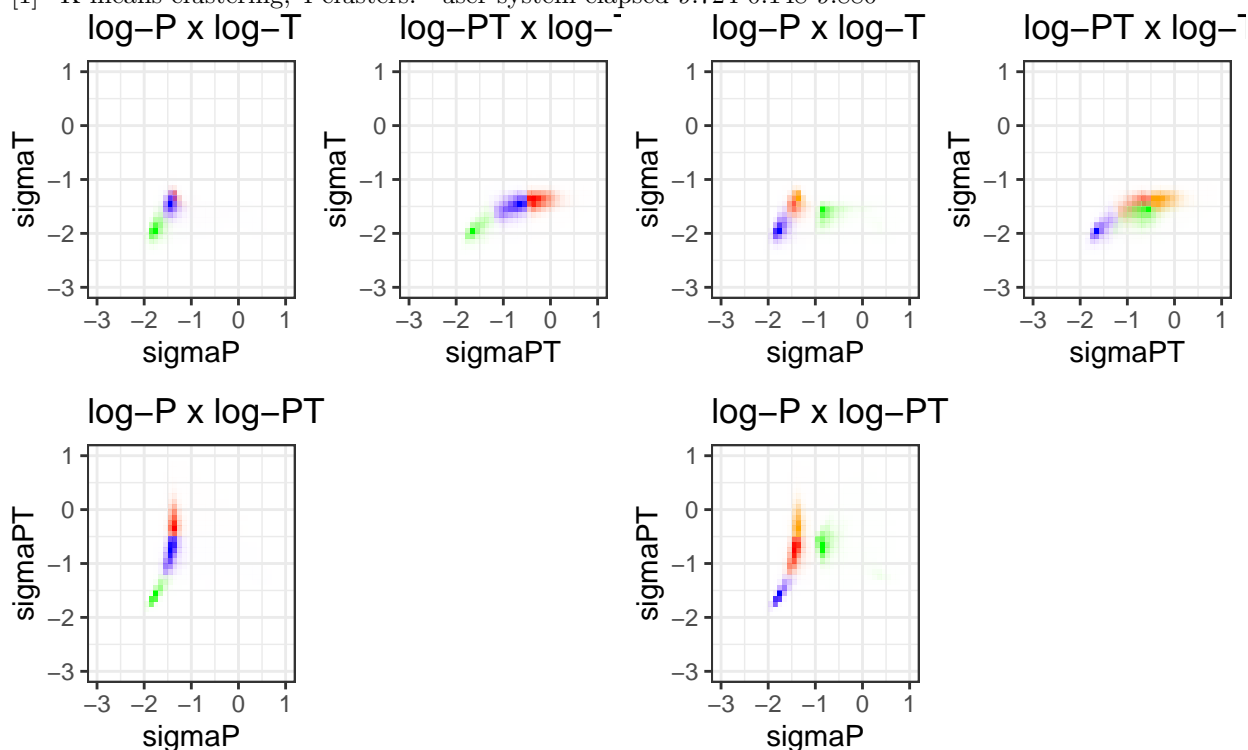Principal Component Analysis (on all sites log-sigma values)

	sigmaP	sigmaPT	sigmaT	Frac. var explained
Comp.1	0.2808	0.9012	0.3303	0.8158
Comp.2	0.9446	-0.1984	-0.2615	0.1211
Comp.3	0.1701	-0.3854	0.9069	0.0632

Comp 1 vs 2

Comp 1 vs 3

Comp 2 vs 3

Clustering Analysis:

[1] "K-means clustering, 3 clusters:" user system elapsed 6.605 0.214 6.824
[1] "K-means clustering, 4 clusters:" user system elapsed 9.724 0.148 9.880

[1] "Fuzzy C-means clustering, 3 clusters:" user system elapsed 14.074 0.205 14.291
[1] "Fuzzy C-means clustering, 4 clusters:" user system elapsed 18.933 0.151 19.098