

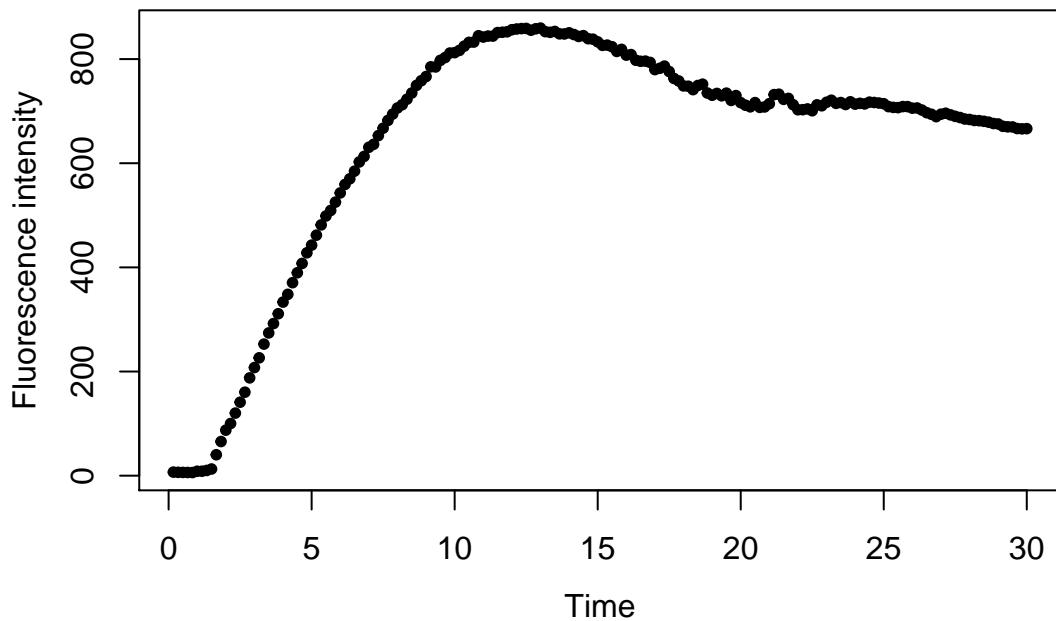
# Analysis of individual stanfit objects

November 3, 2020

**Dataset: experimental\_data\_eGFP, model type: ODE**

**Trajectory 33: no pathologies**

**Trajectory 33**



	mean	se_mean	sd	5%	50%	95%	n_eff
theta[1]	0.076	0.001	0.030	0.038	0.074	0.120	1230
theta[2]	1.586	0.021	2.113	0.031	0.693	6.048	10425
theta[3]	0.075	0.001	0.030	0.038	0.068	0.120	1226
m0	210.723	2.074	207.174	5.240	145.964	630.328	9975
sigma	0.073	0.000	0.004	0.067	0.073	0.080	14012
scale	7.107	0.087	8.011	0.139	3.551	24.866	8512
offset	7.243	0.002	0.189	6.935	7.240	7.562	13753
t0	1.469	0.000	0.005	1.459	1.469	1.477	13792
prod_theta2_m0	241.957	5.996	583.761	6.526	46.046	1170.348	9479
prod_theta2_scale	6.627	0.219	18.777	0.258	1.117	31.243	7378
prod_m0_scale	1084.213	26.006	2262.080	26.914	235.176	5255.401	7566
prod_theta2_m0_scale	162.888	0.021	2.929	158.310	162.780	167.821	20139
x2_sim[180]	901.891	22.345	2175.328	24.351	170.637	4373.919	9477
			Rhat				
theta[1]			1.004				
theta[2]			1.001				
theta[3]			1.004				
m0			1.000				
sigma			1.000				
scale			1.000				

```
offset           1.000
t0              1.000
prod_theta2_m0 1.000
prod_theta2_scale 1.001
prod_m0_scale   1.000
prod_theta2_m0_scale 1.000
x2_sim[180]      1.000
```

Divergences:

0 of 20000 iterations ended with a divergence.

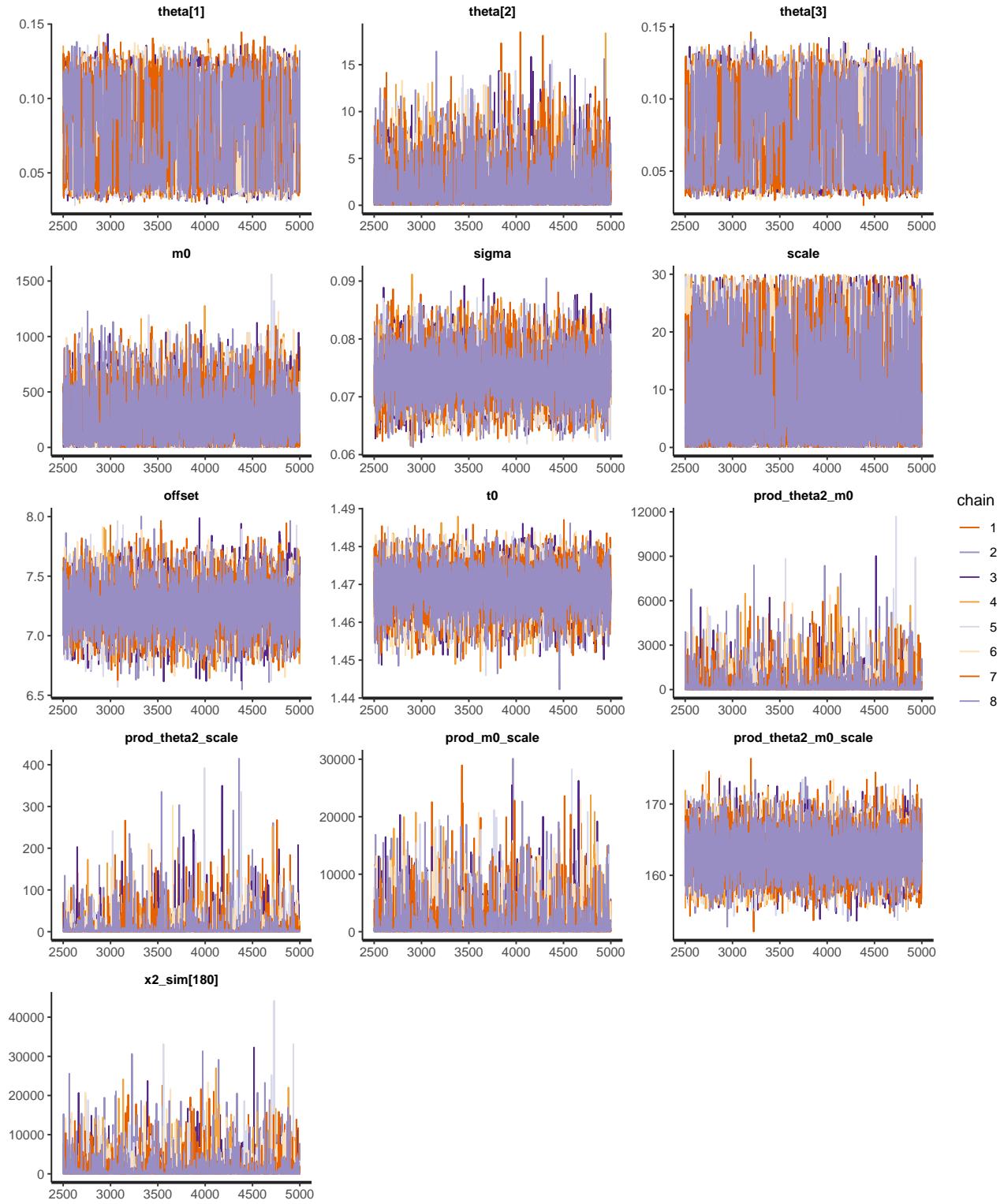
Tree depth:

0 of 20000 iterations saturated the maximum tree depth of 15.

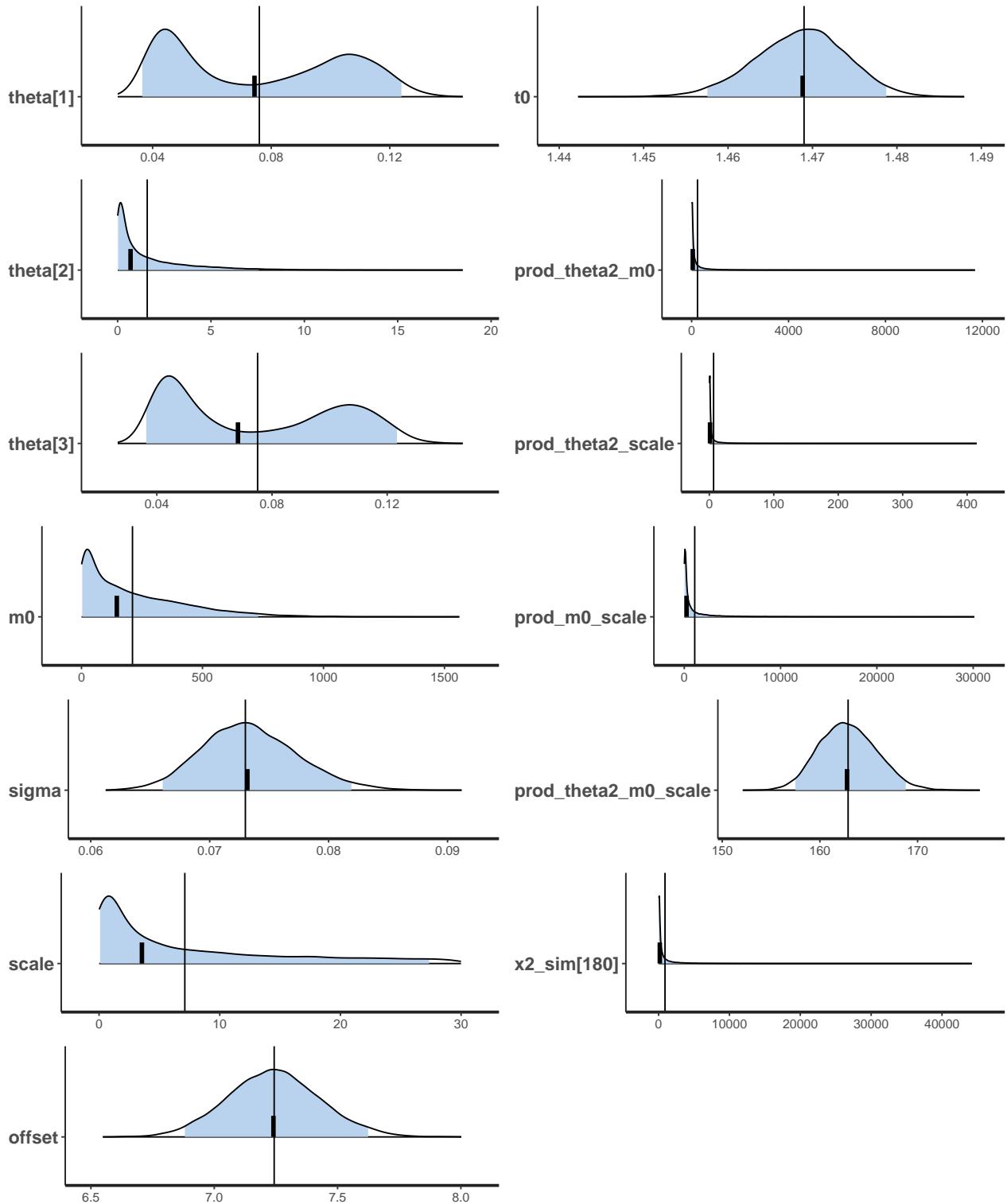
Energy:

E-BFMI indicated no pathological behavior.

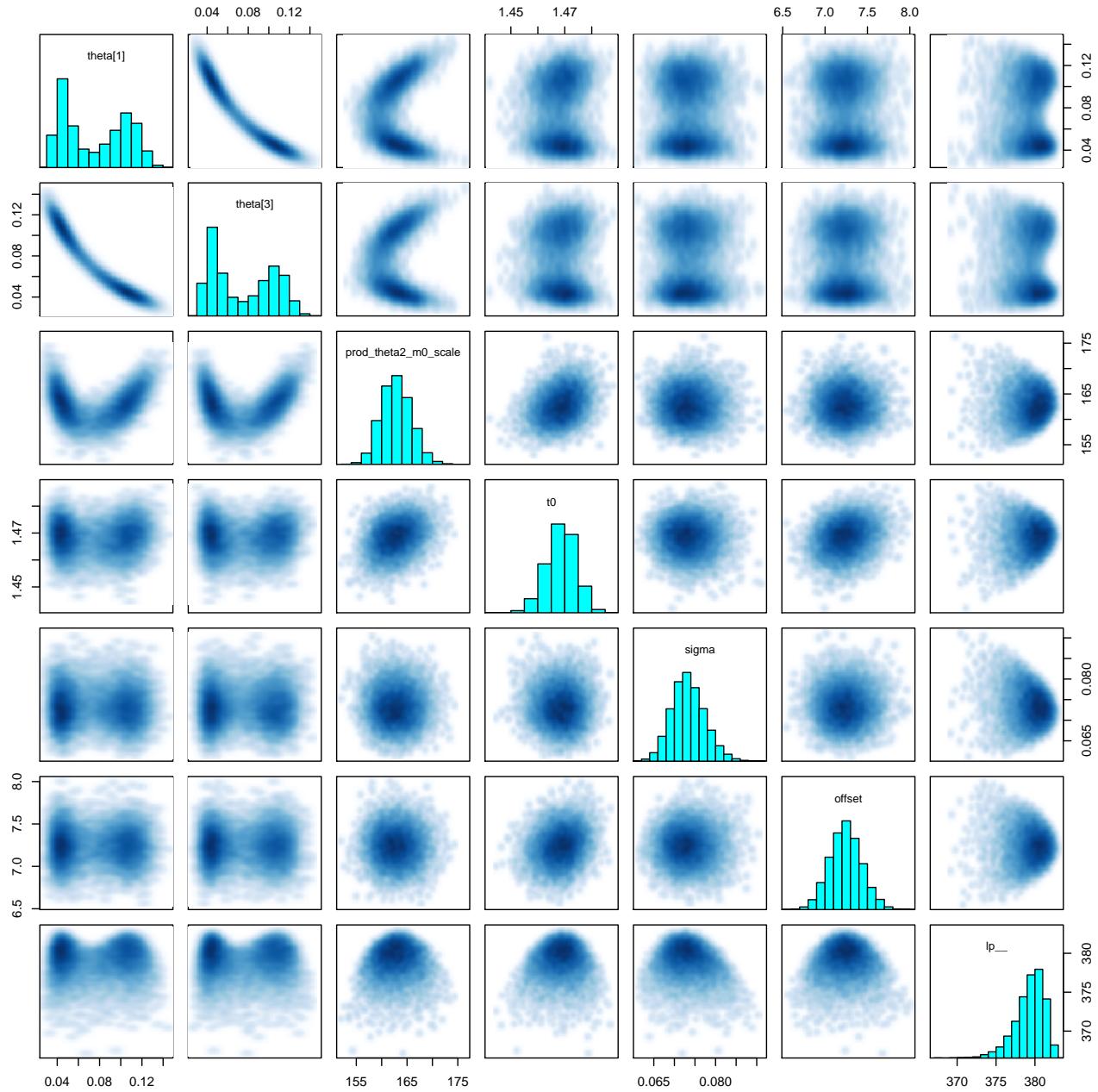
## Traceplots

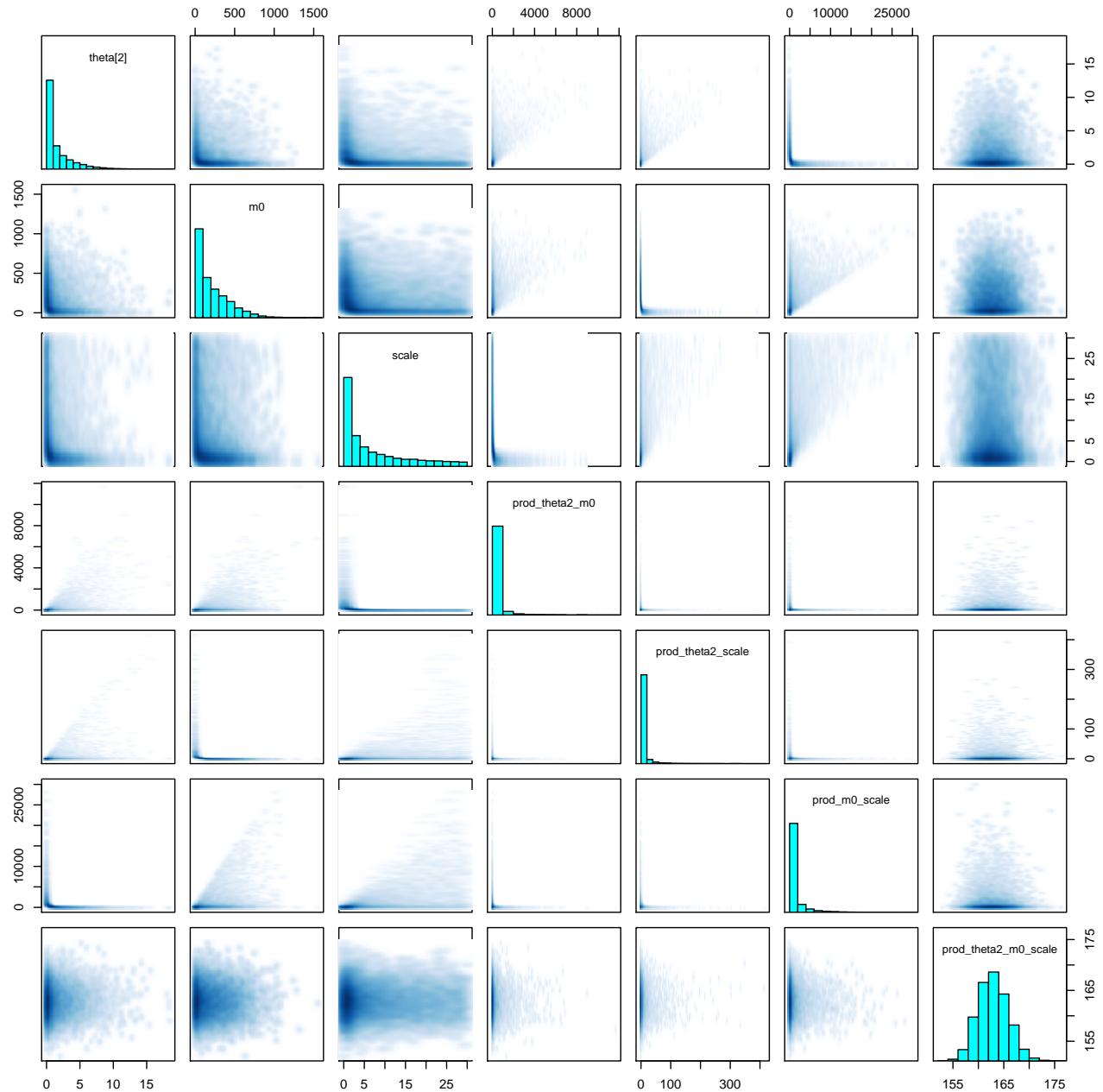


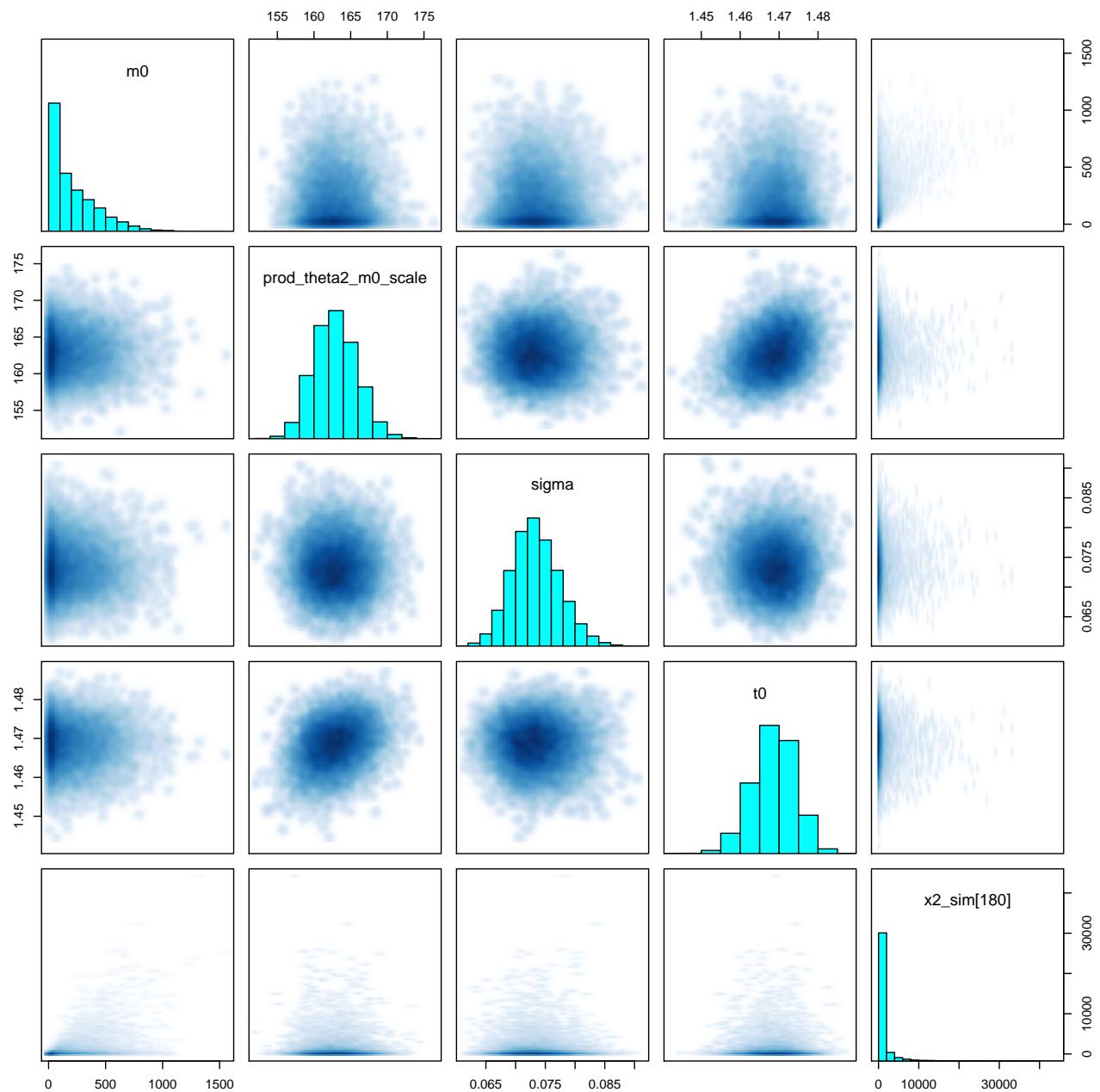
### Density plots with 95% CI and median



## Pair plots

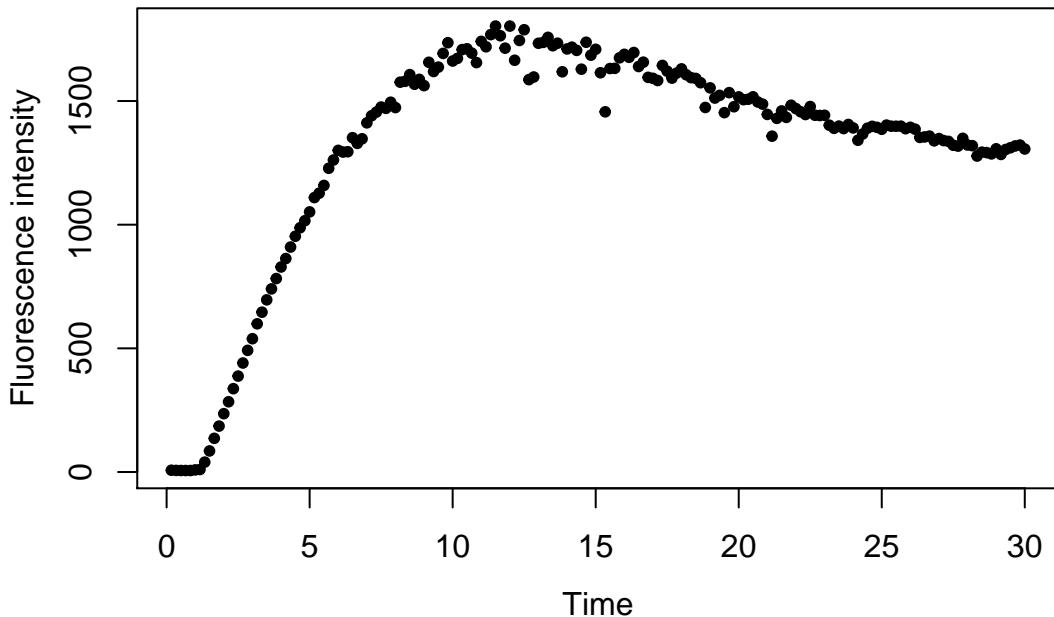






## Trajectory 12: very high Rhat for theta[1] theta[3]

### Trajectory 12



	mean	se_mean	sd	5%	50%	95%	n_eff
theta[1]	0.076	0.023	0.047	0.034	0.042	0.146	4
theta[2]	1.819	0.020	2.200	0.059	0.940	6.509	12068
theta[3]	0.100	0.023	0.047	0.035	0.129	0.148	4
m0	226.453	2.019	208.811	8.683	167.926	642.821	10695
sigma	0.065	0.000	0.004	0.059	0.064	0.071	16610
scale	8.119	0.086	8.187	0.281	4.876	25.570	9072
offset	7.051	0.001	0.173	6.773	7.049	7.339	16536
t0	1.259	0.000	0.006	1.249	1.259	1.268	15687
prod_theta2_m0	295.112	5.892	601.295	14.809	78.099	1346.896	10415
prod_theta2_scale	9.293	0.240	21.004	0.590	2.254	43.571	7656
prod_m0_scale	1376.820	26.486	2450.599	58.183	402.363	6342.262	8561
prod_theta2_m0_scale	378.868	0.060	6.453	368.306	378.811	389.555	11383
x2_sim[180]	930.393	18.580	1897.214	46.665	245.143	4245.440	10426
Rhat							
theta[1]	7.758						
theta[2]	1.000						
theta[3]	6.537						
m0	1.000						
sigma	1.000						
scale	1.000						
offset	1.000						
t0	1.000						
prod_theta2_m0	1.000						
prod_theta2_scale	1.000						
prod_m0_scale	1.001						
prod_theta2_m0_scale	1.000						
x2_sim[180]	1.000						

Divergences:

0 of 20000 iterations ended with a divergence.

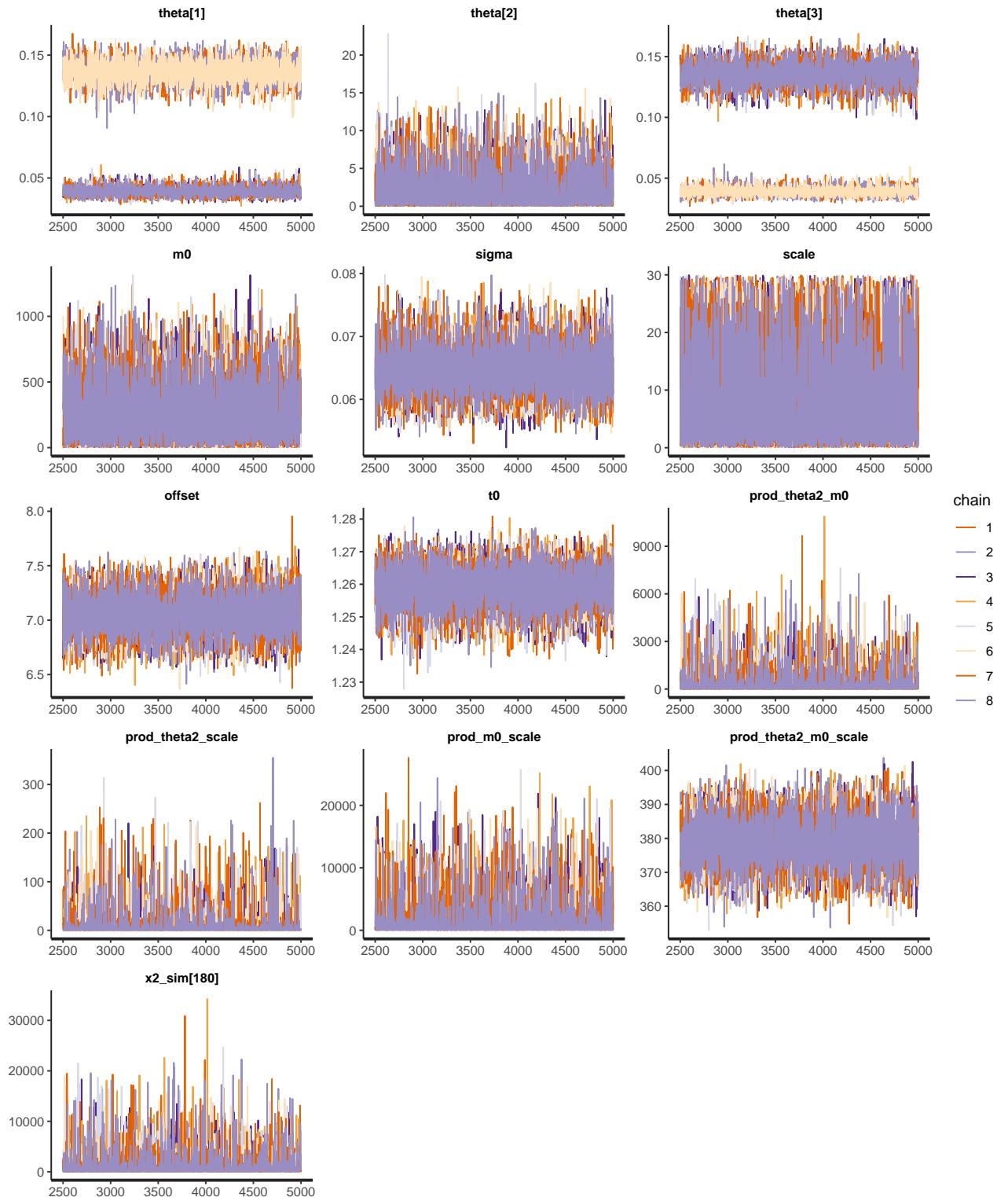
Tree depth:

0 of 20000 iterations saturated the maximum tree depth of 15.

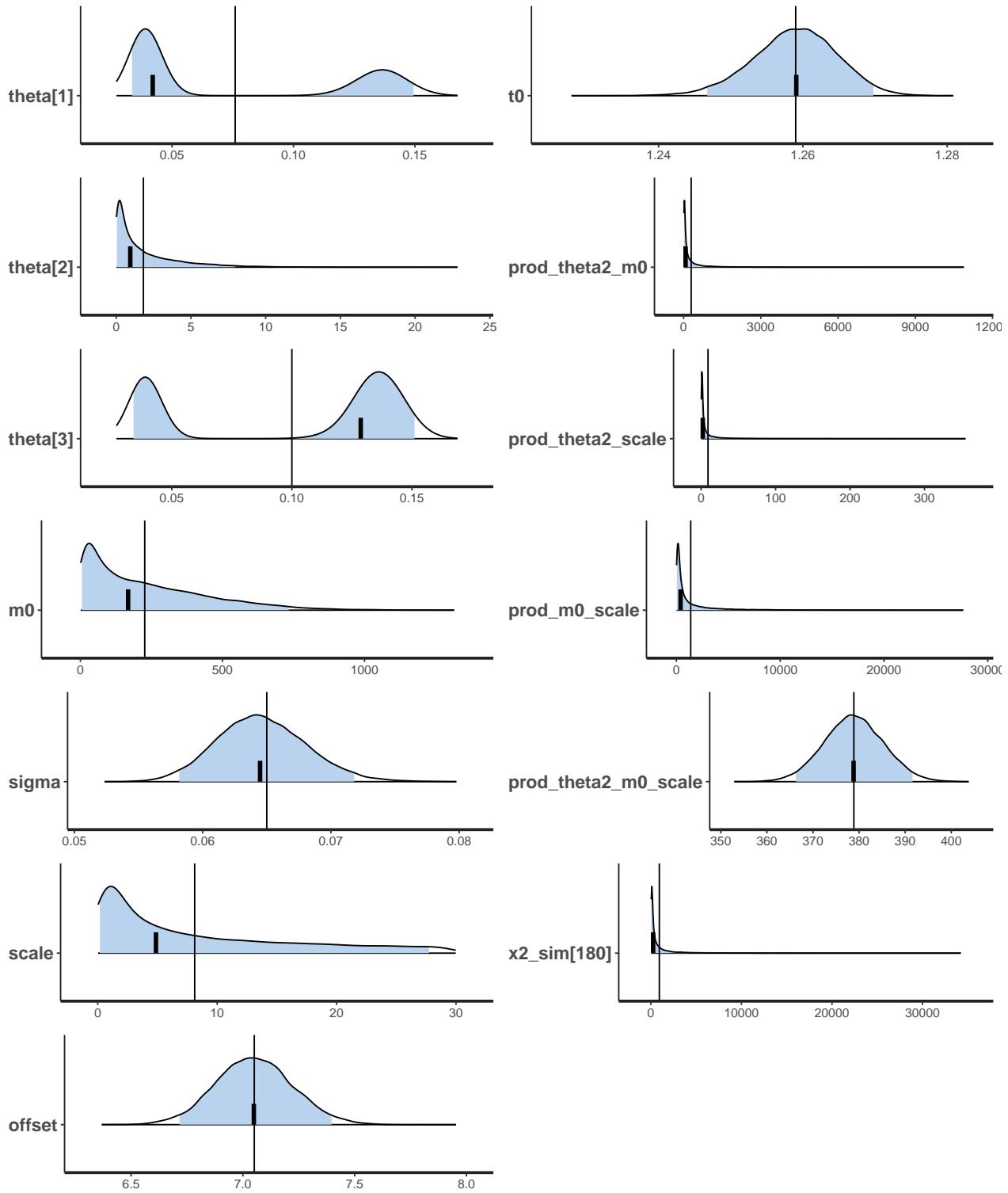
Energy:

E-BFMI indicated no pathological behavior.

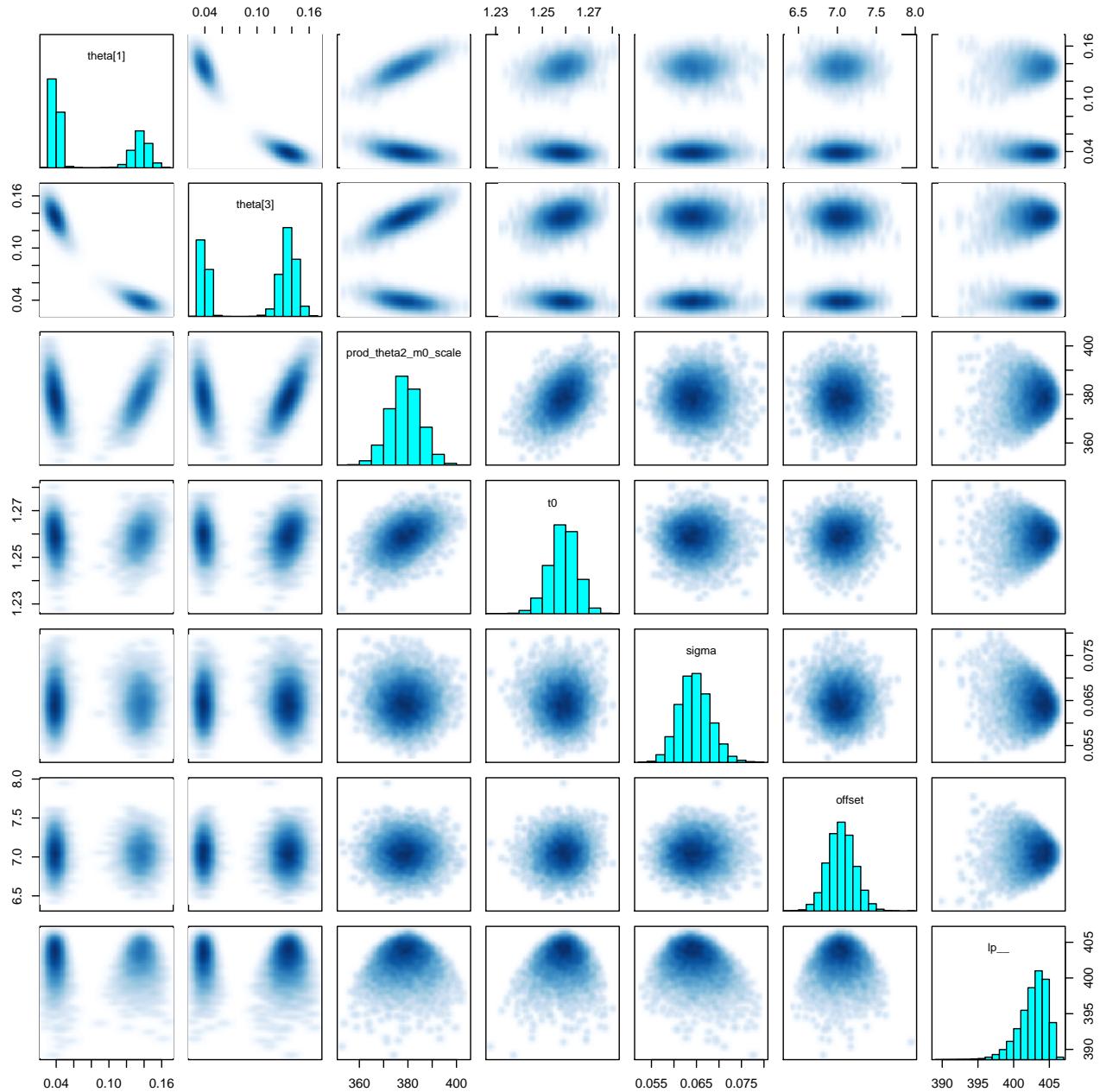
## Traceplots

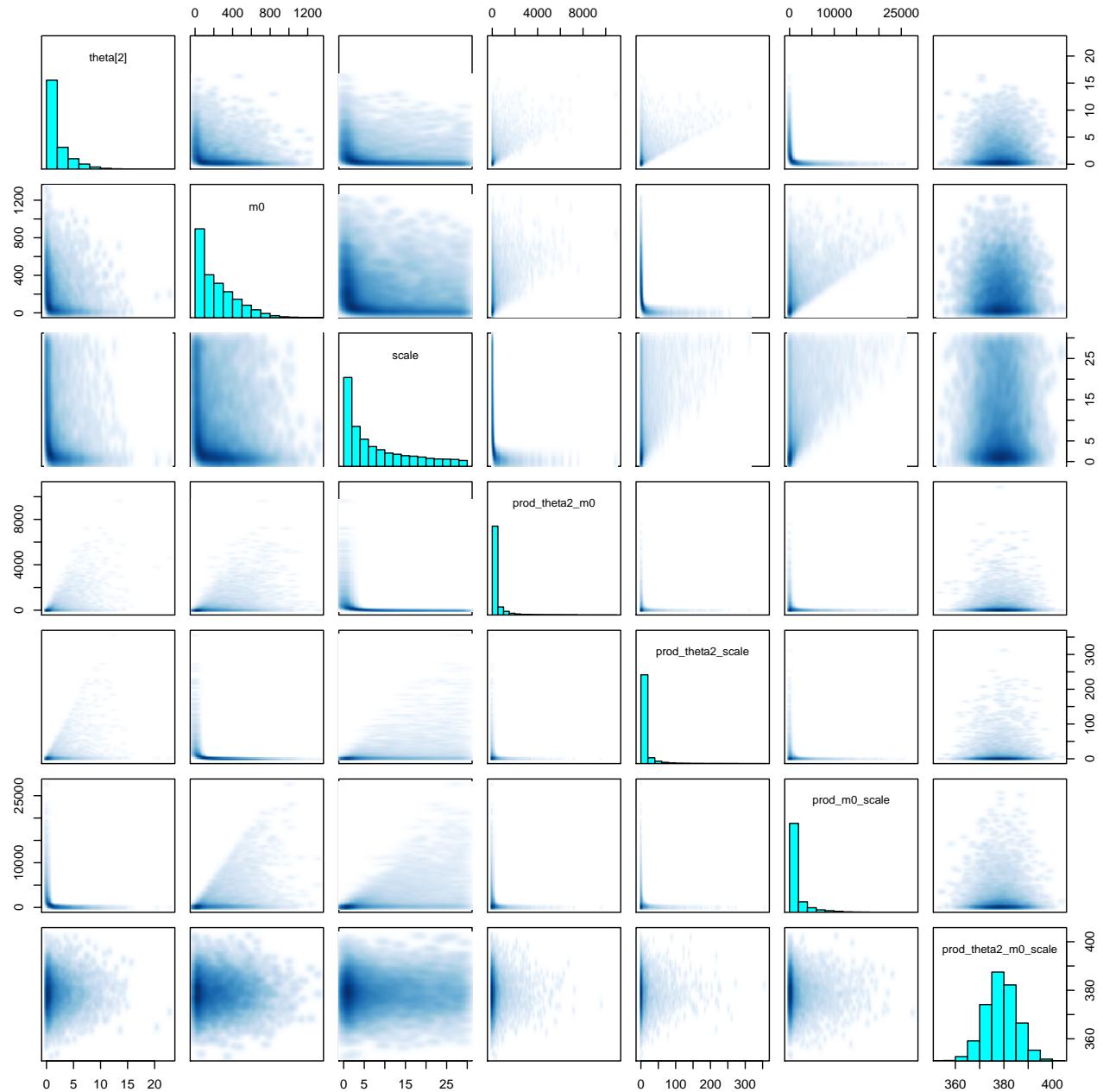


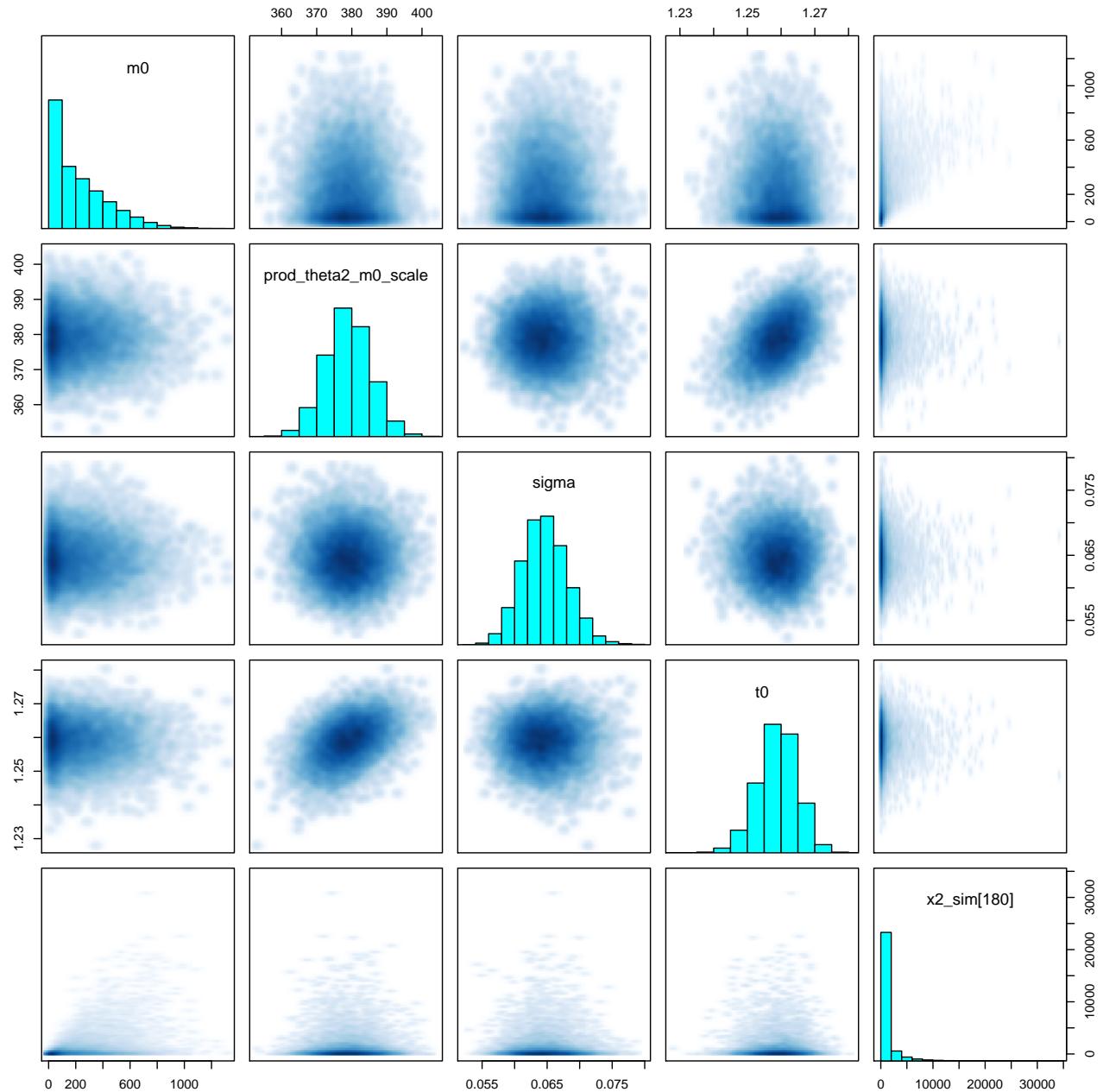
### Density plots with 95% CI and median



## Pair plots

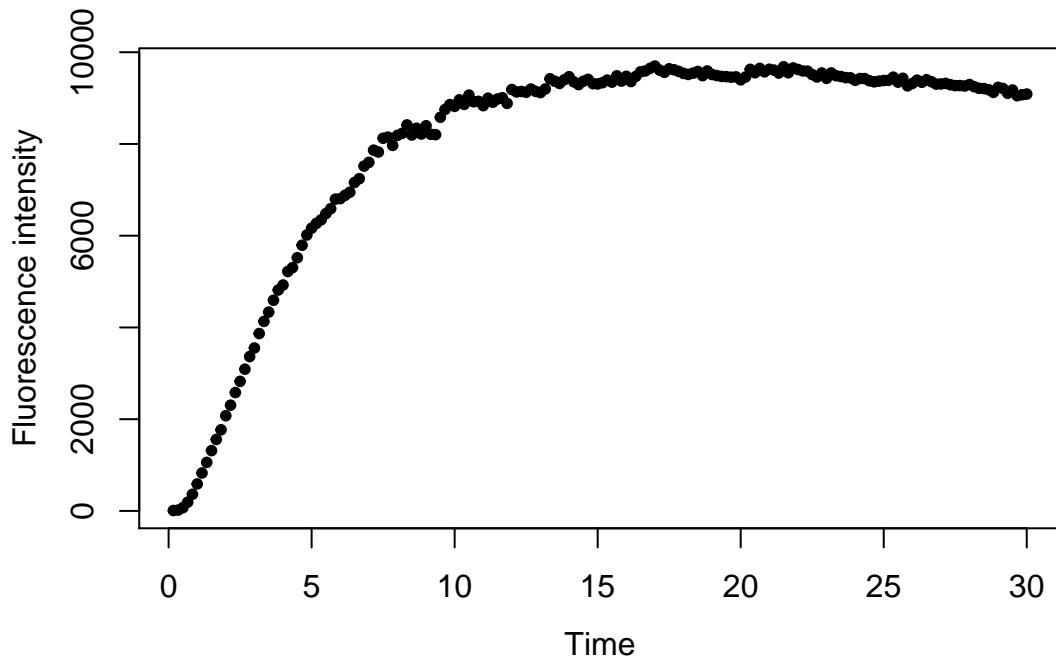






## Trajectory 42: very high Rhat for sigma offset t0 prod\_theta2\_m0\_scale

### Trajectory 42



	mean	se_mean	sd	5%	50%	95%	n_eff
theta[1]	0.069	0.004	0.039	0.017	0.064	0.139	102
theta[2]	2.281	0.022	2.290	0.194	1.477	7.053	10961
theta[3]	0.060	0.003	0.037	0.015	0.050	0.133	155
m0	271.306	2.043	214.467	25.857	218.499	689.109	11016
sigma	0.103	0.008	0.016	0.084	0.095	0.130	4
scale	10.317	0.090	8.303	0.913	7.795	26.781	8600
offset	17.089	2.453	5.042	12.124	14.011	25.262	4
t0	0.513	0.028	0.057	0.465	0.472	0.598	4
prod_theta2_m0	469.471	7.040	719.399	60.580	207.747	1778.175	10443
prod_theta2_scale	16.568	0.322	26.001	2.355	7.432	62.891	6514
prod_m0_scale	2250.934	32.784	2966.562	230.752	1103.760	8324.824	8188
prod_theta2_m0_scale	1627.570	43.567	96.121	1522.428	1584.063	1803.251	5
x2_sim[180]	2506.117	37.355	3845.280	323.561	1112.623	9453.630	10596
	Rhat						
theta[1]	1.092						
theta[2]	1.001						
theta[3]	1.034						
m0	1.000						
sigma	3.007						
scale	1.001						
offset	4.262						
t0	8.095						
prod_theta2_m0	1.001						
prod_theta2_scale	1.000						
prod_m0_scale	1.001						
prod_theta2_m0_scale	2.336						
x2_sim[180]	1.001						

Divergences:

0 of 20000 iterations ended with a divergence.

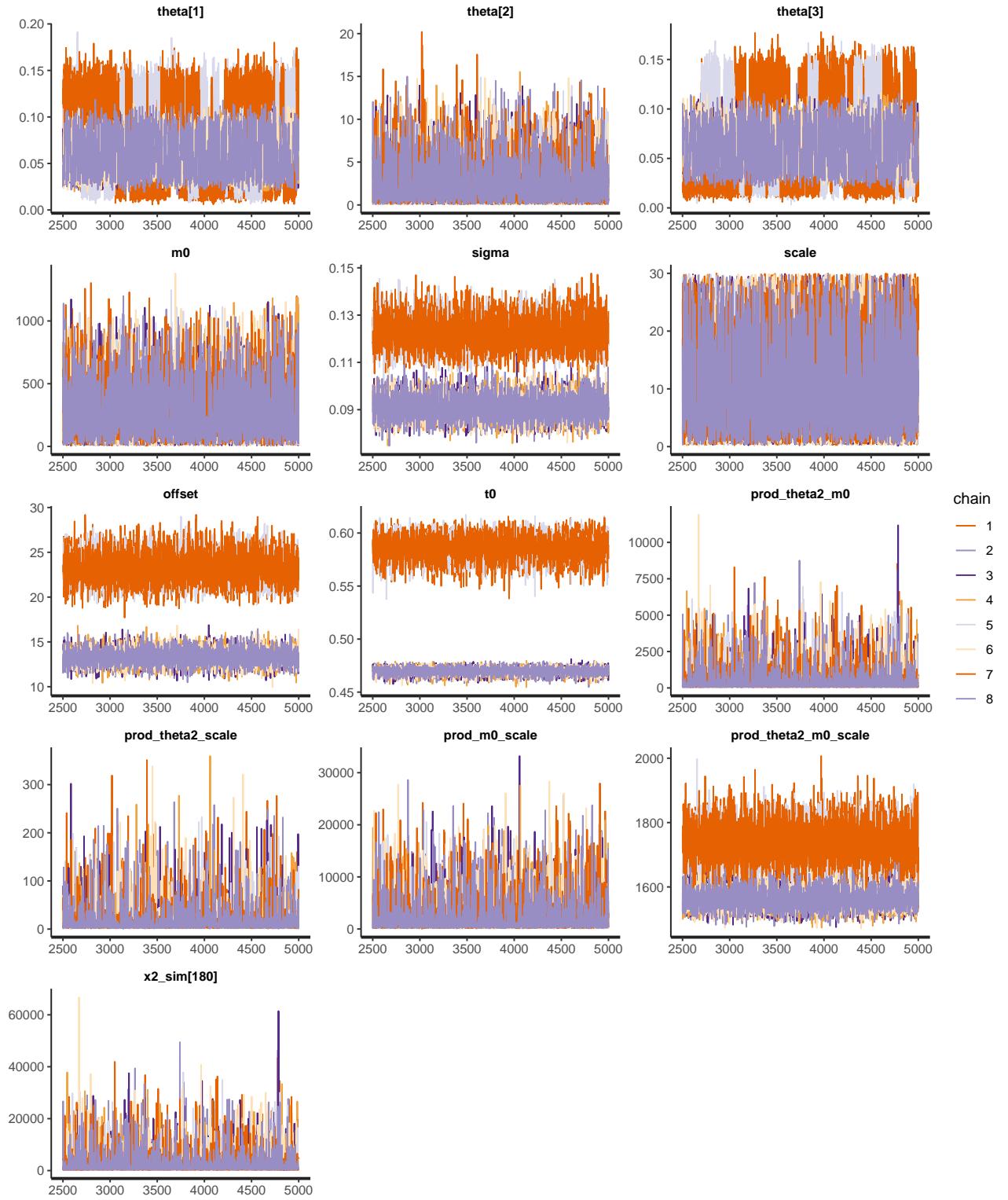
Tree depth:

0 of 20000 iterations saturated the maximum tree depth of 15.

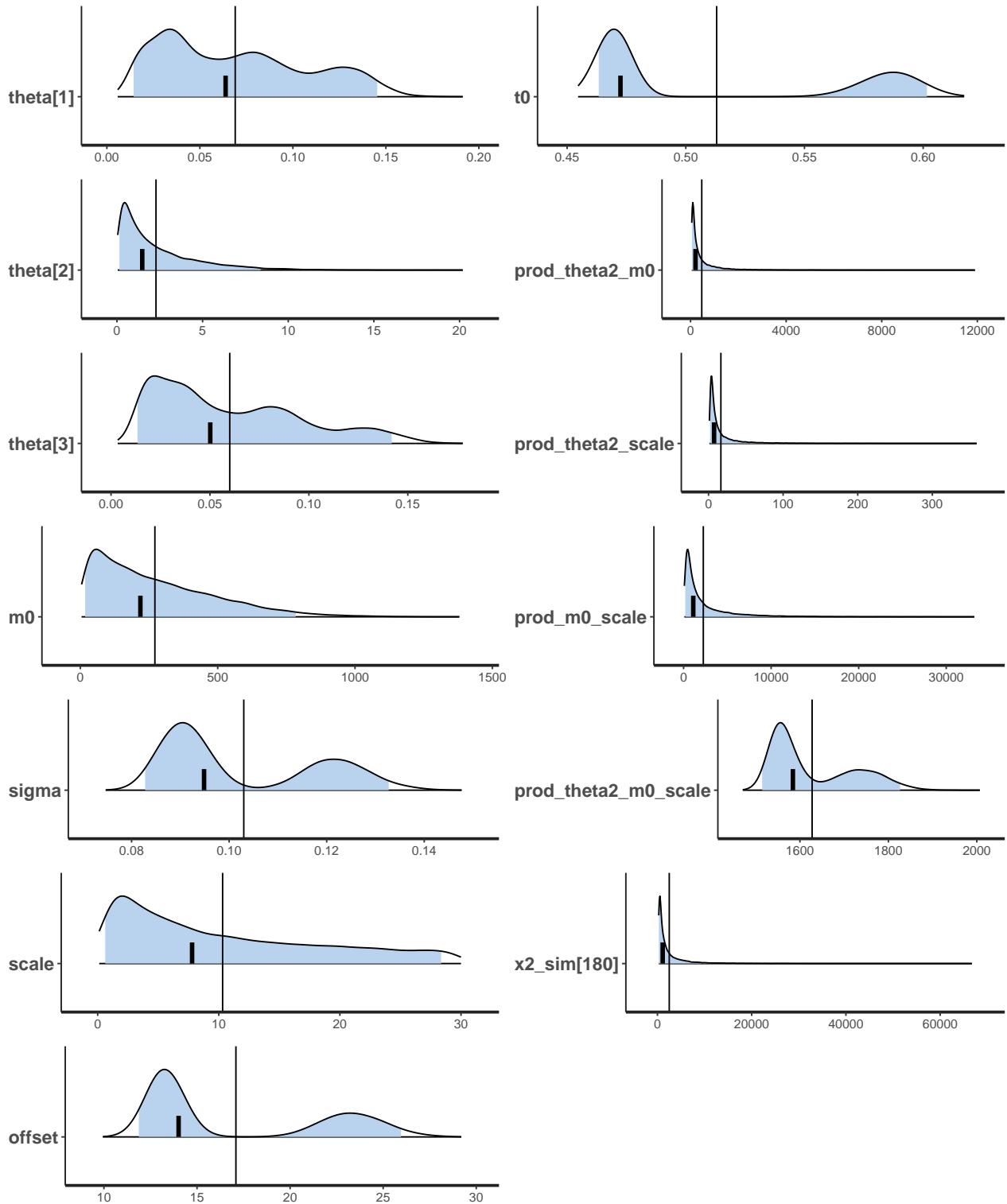
Energy:

E-BFMI indicated no pathological behavior.

## Traceplots



### Density plots with 95% CI and median



## Pair plots

