

# MTGP\_cov

1) Elementary and standalone covariance function $k(\mathbf{x}, \mathbf{z})$				
#	<NAME>	meaning	memo	state
2	MTGP_covCC_chol_nD		[1 0 0;0 1 0;0 0 1]独立 [1 0 0;1 0 0;1 0 0]相依	✓
3	MTGP_covCC_chol_nD_mask		不了解 mask 的影响	✓
5	MTGP_covMaterniso	$\approx$ covMaterniso		✓
6	MTGP_covMaternisoU	$\sigma_f = 1$	MTGP_covMaterniso	✓
7	MTGP_covMaternisoU_shift		minimize 不优化; 1D	✗
8	MTGP_covMaternisoU_shift_mask		minimize 不优化; 1D	✗
9	MTGP_covNoise	$k(\mathbf{x}^p, \mathbf{x}^q)$ = s2 * $\backslash \Delta(p, q)$		✓
10	MTGP_covPeriodiciso			✓
11	MTGP_covPeriodicisoU		MTGP_covPeriodiciso	✓
12	MTGP_covPeriodicisoUU		MTGP_covPeriodiciso	✓
13	MTGP_covPeriodicisoUU_shift		minimize 不优化; 1D	✗
14	MTGP_covPeriodicisoUU_shift_mask		minimize 不优化; 1D	✗
16	MTGP_covQPMisoUU_shift		minimize 不优化; 1D	✗
17	MTGP_covQPMisoUU_shift_mask		minimize 不优化; 1D	✗
18	MTGP_covQPSisoUU_shift		1D	✓
19	MTGP_covQPSisoUU_shift_mask		1D	✓
20	MTGP_covRQiso			✓
21	MTGP_covRQisoU			✓
22	MTGP_covSEconU			✓
23	MTGP_covSEiso			✓
24	MTGP_covSEisoU			✓
25	MTGP_covSEisoU_shift		1D	✓
26	MTGP_covSEisoU_shift_mask		1D	✓
27	MTGP_covSEisoU_shift_nD		nD	✓
2) Composite covariance function $k(\mathbf{x}, \mathbf{z})$				
#	<NAME>	meaning	memo	state
1	MTGP_covADD	$\approx$ covADD	搭配 covfunc 使用	✓
4	MTGP_covMask	$\approx$ covMask	搭配 covfunc 使用	✓
15	MTGP_covProd	= covProd		✓
28	MTGP_covSum	= covSum		✓

近似条件：令  $\mathbf{x} = \mathbf{x}(:, \text{end}-1);$