

Day 2 – Joint Modelling + Non-stationarity

Today's Focus

- ▶ Joint models
- ▶ Shared vs group-specific fields
- ▶ Non-stationary spatial processes

Load Datasets

```
library(readr)

joint_malaria <- read_csv("../data/joint_malaria_processes.csv")
nonstat_malaria <- read_csv("../data/nonstationary_malaria_data.csv")
head(joint_malaria)
```

	# A tibble: 6 x 12	id	group	utm_x	utm_y	n_tested	n_pos	prevalence_true	S_shared	S_sp
		<dbl>	<chr>	<dbl>	<dbl>	<dbl>	<dbl>	<dbl>	<dbl>	<dbl>
1	1	child~	249196.	7.37e5		148	48	0.281	0.297	
2	2	child~	703934.	9.57e5		107	35	0.337	-0.0736	
3	3	child~	-90558.	9.32e5		139	66	0.416	0.680	
4	4	child~	252087.	1.11e6		138	55	0.369	-0.147	
5	5	child~	685078.	1.34e6		183	47	0.219	-0.192	