Reproduce conditional approach

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Setting up

Model 1 (independent Matérns): $b_o(h) \equiv 0,$

Model 2 (pointwise dependence): $b_o(h) \equiv A\delta(h),$

Model 3 (diffused dependence):   Model 4 with $\Delta = 0$

Model 4 (asymmetric dependence): $b_o(h) \equiv \begin{cases} A\{1 - (\|h - \Delta\|/r)^2\}^2, & \|h - \Delta\| \leq r \\ 0, & \text{otherwise,} \end{cases}$

where $\Delta = (\Delta_1, \Delta_2)^{\mathsf{T}}$ is a shift-parameter vector that captures asymmetry, r is the aperture parameter, and A is a scaling parameter.

In Models 3 and 4, $b_o(h)$ is a shifted bisquare function defined on $\mathbb{R}^2$.

The covariance functions $C_{11}(\cdot)$ and $C_{2|1}(\cdot)$ are Matérn covariance functions.

For each model we also consider a *reversed* dependence, where we switch Y_2 and Y_1. This gives us a total of eight models to fit and compare.

```
### Model choice

model_names <- c("independent","pointwise","moving_average_delta0","moving_average")
image_path <- "../paper/art"
show_figs <- 1                   ## show figs in document
print_figs <- 0                  ## Print figures to file (leave =0)
LK_analysis <- 0                 ## log-likelihood analysis
LOO_analysis <- 0                ## LOO analysis
Shifted_Pars_estimation <- 0     ## Fit shifted parimonious Matern
RF_estimation <- 0               ## Carry out LOO with RFields
useMPI <- 0                      ## MPI backend available?
```