| Model | Effect\_Type | Variables | Site\_Specific\_Effect | Description |
| --- | --- | --- | --- | --- |
| i | Tensor | k, logU/U | Tensor by site (same penalty) | Shared tensor for k and logU/U across sites, with an additional tensor for each site (same penalization). |
| ii | Tensor | k, logU/U | Intercept by site | Shared tensor for k and logU/U across sites, with an individual intercept per site. |
| iii | Spline | logU/U | Spline by site (same penalty) | Shared spline for logU/U across sites, with an additional spline for each site (same penalization). |
| iv | Spline | logU/U | Intercept by site | Shared spline for logU/U across sites, with an individual intercept per site. |
| v | Spline | k | Spline by site (same penalty) | Shared spline for k across sites, with an additional spline for each site (same penalization). |
| vi | Spline | k | Intercept by site | Shared spline for k across sites, with an individual intercept per site. |
| vii | Intercept | None | Intercept by site | Simple intercept model with both a common and site-specific intercept. |