

MULTILEVEL AND HIERARCHICAL MODELS

Shrinkage, partial pooling, and mixed linear models

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MULTILEVEL MODELS

- Multilevel models introduce structure to the parameter distribution
- Allows us to model several common processes
 - Repeated measures of the same individual
 - Block designs (some observations more similar than others)
 - Pseudo-replicates
 - Correlated observations
- Even in the absence of this type of structure, multilevel models can improve model performance