

Explicit connections between longitudinal data analysis and kernel machines

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Abstract

Two areas of research – *longitudinal data analysis* and *kernel machines* – have large, but mostly distinct, literatures. This article shows explicitly that both fields have much in common with each other. In particular, many popular longitudinal data fitting procedures are special types of kernel machines. These connections have the potential to provide fruitful cross-fertilization between longitudinal data analytic and kernel machine methodology.

Keywords: Best linear unbiased prediction, classification, generalized linear mixed models, machine learning, linear mixed models, reproducing kernel Hilbert spaces, penalized likelihood, support vector machines.



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