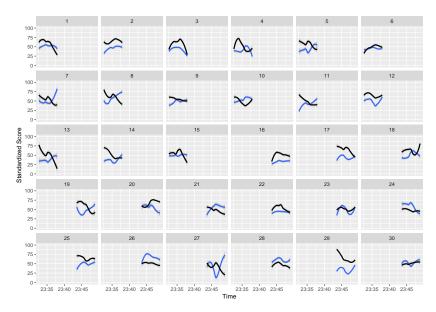# A Longitudinal Analysis of the Synchronized Brainwave Dataset

Thomas Edwards and Jonathan Skaza

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Background

- Bullet 1
- Bullet 2

Smoothed Trajectories by Subject

Model

$$\begin{pmatrix} \mathbf{Y_{1i}} \\ \mathbf{Y_{2i}} \end{pmatrix} = \mathbf{X_i}^T \begin{pmatrix} \beta_{1i} \\ \beta_{2i} \end{pmatrix} + \mathbf{Z_i}^T \begin{pmatrix} b_{1i} \\ b_{2i} \end{pmatrix} + \begin{pmatrix} \epsilon_{1i} \\ \epsilon_{2i} \end{pmatrix}$$

- *Fixed Effects*: Intercept, Session, Gender, Color, Time, Hidden Icons, Previous Exposure to Ad
- *Random Effects*: Intercept, Time