

Title: Spatiotemporal analysis of longitudinal spike recordings in human cortex

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Abstract: Chronic experiments exploring the human cortex produce enormous datasets that offer a unique opportunity to study neural circuits over extended periods of time. In these data sets neural information is recorded from the same location, in similar experimental contexts, over several years. These recordings may therefore benefit from current innovations in the analysis of large datasets which, applied to other data types, are offering novel and exciting possibilities to identify high-order correlations in data. What therefore could be revealed in neural data where single and multiunit activity is recorded over multiple time scales from multiple electrodes?