

# Statistical counterpoint: Knowledge discovery of choreographic information using spatio-temporal analysis and visualization

O. Ahlqvist

*Department of Geography*

H. Ban

*Department of Geography*

N. Cressie

*Department of Statistics*

N. Zuniga Shaw

*Department of Dance and*

*Advanced Computing Center for the Arts and Design*

## **Abstract**

Temporal GIS has moved rapidly from concepts and methods that took its inspiration from theories largely developed in a data-poor setting, to a situation where tools and theories are needed for large, individual-level, spatio-temporally detailed data sets. We present work to develop a rich data base on choreographic information and use it as a test-bed for existing geo-visual approaches to temporal data. Our visual analysis demonstrates the ability of linked, multivariate displays to pull out distinct differences and similarities in activity patterns and temporal clustering. We also include illustrative graphics that identify some limitations of existing exploratory software in dealing with large volumes of spatio-temporal data.