Quantifying Rhythmic Synchrony
Midwestern Music Cognition Symposium

Colin Raffel, Brian McFee, Dan Ellis
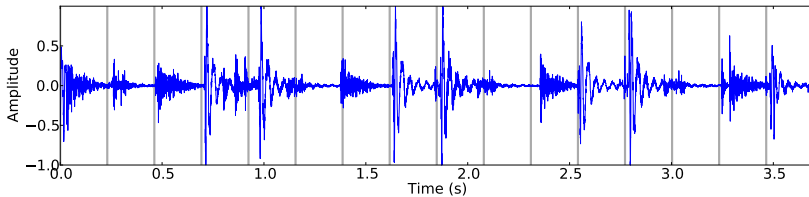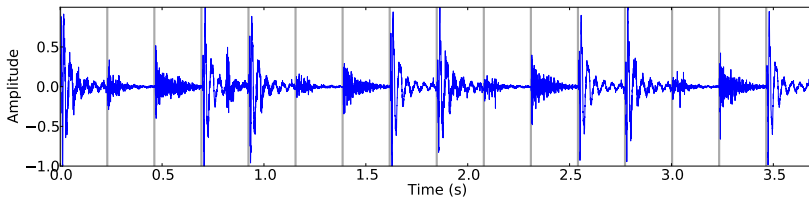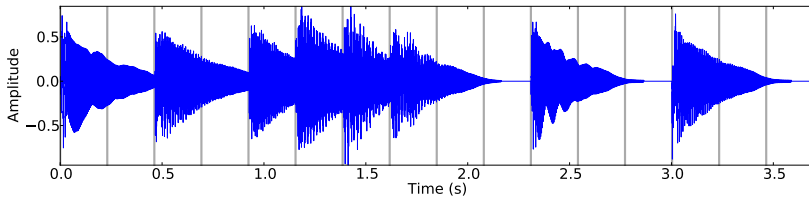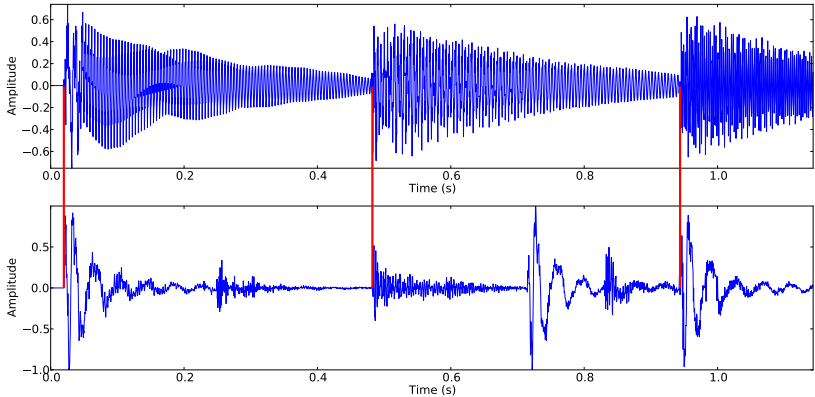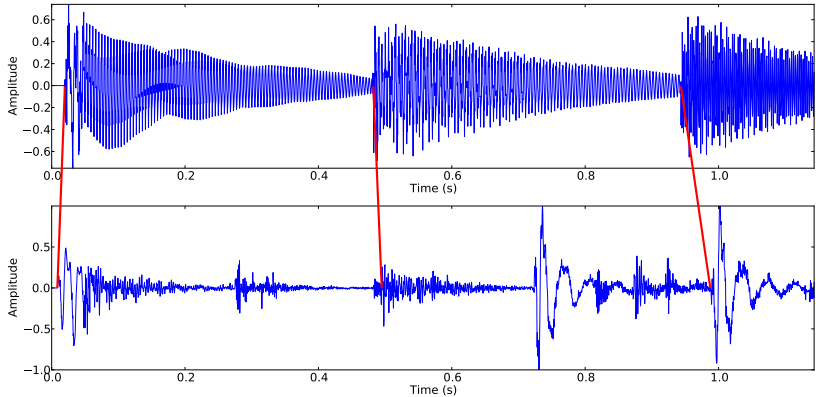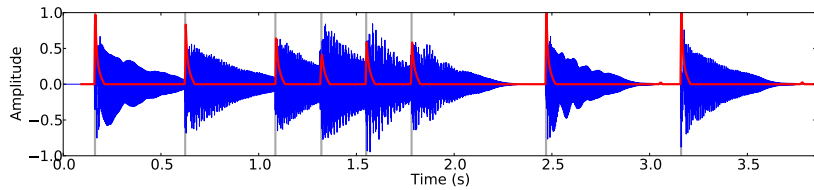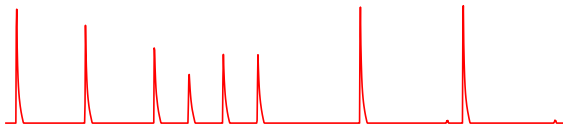
May 25, 2013

Synchronization

Measuring Synchronization

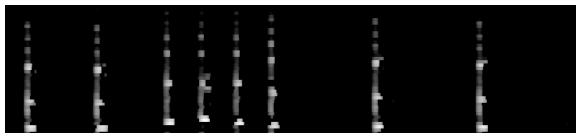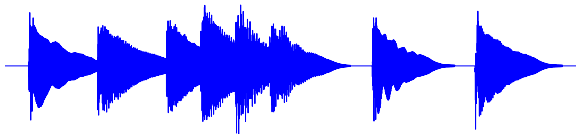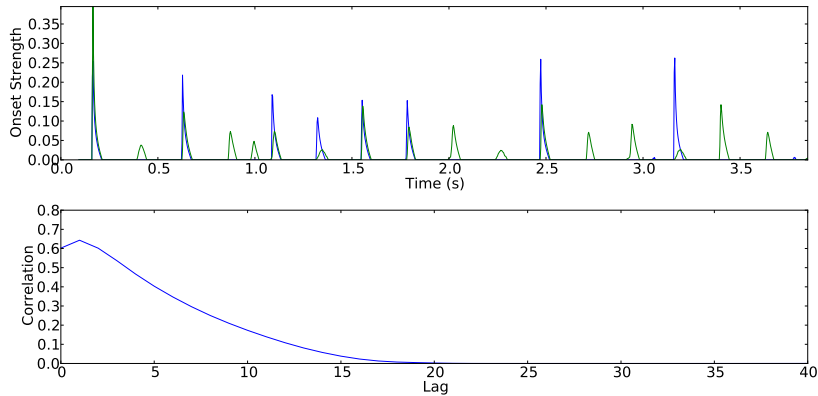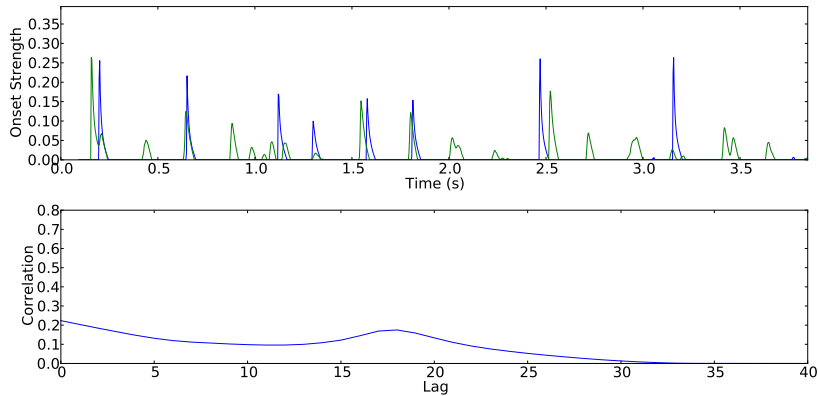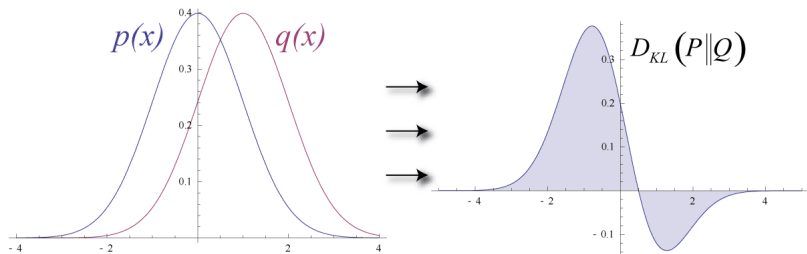# Measuring Synchronization

Onset Detection
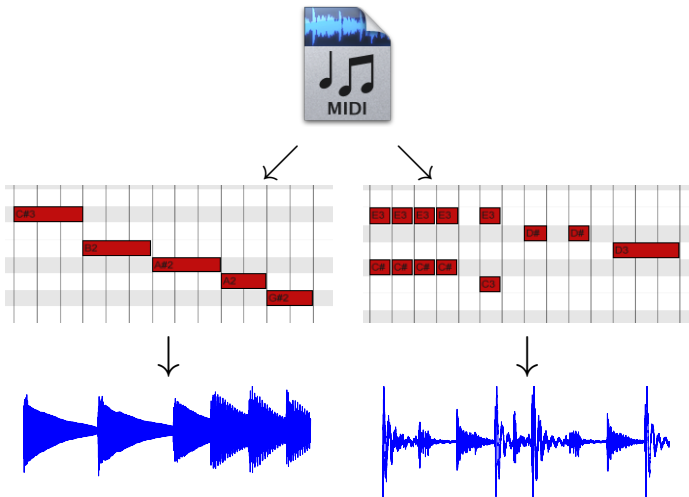
Onset Detection Function

Correlation
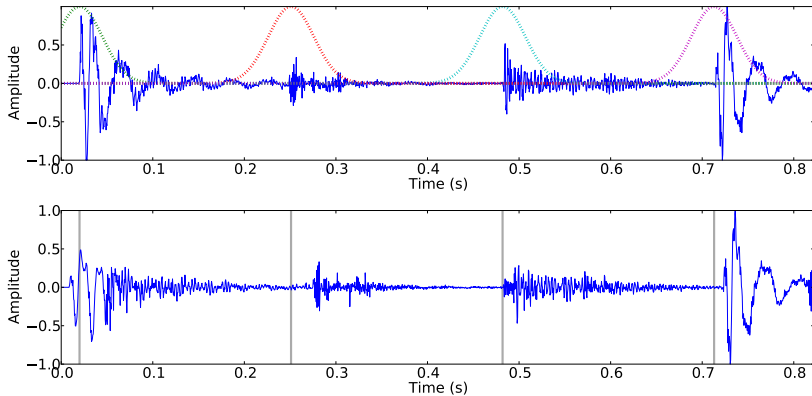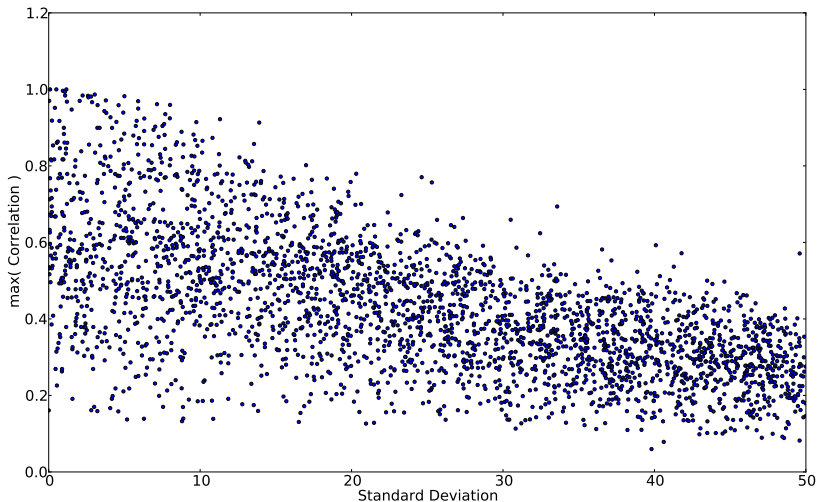
Correlation

Kullback-Leibler Divergence
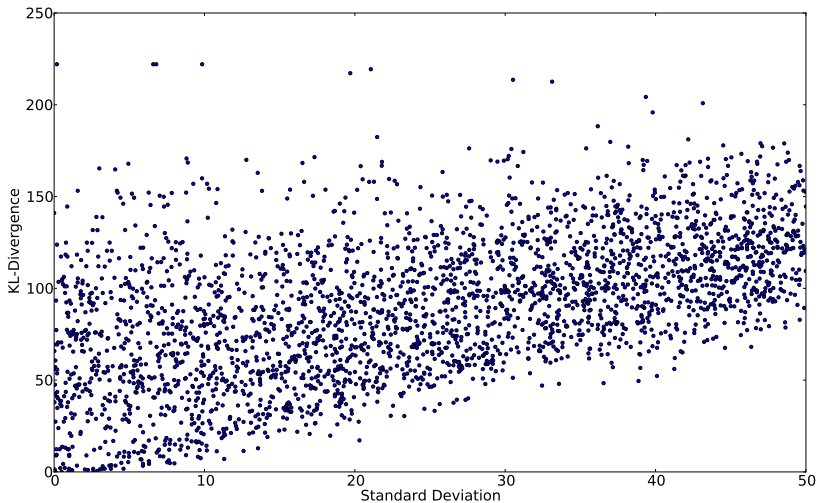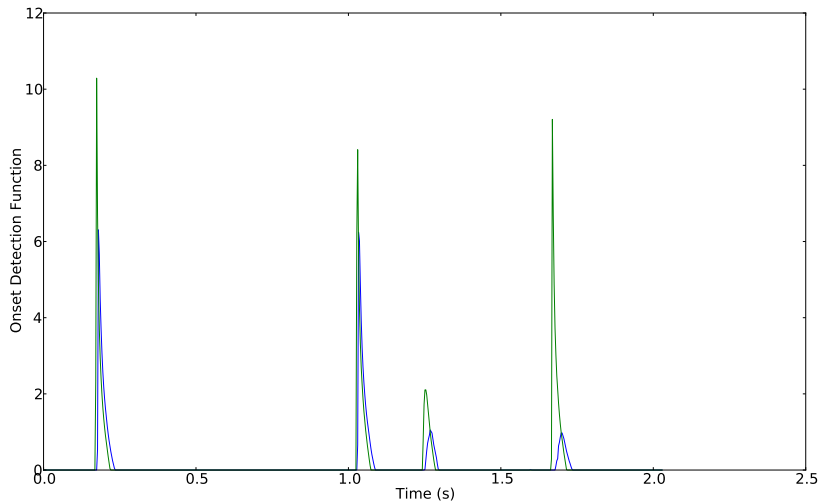
Synthetic Dataset

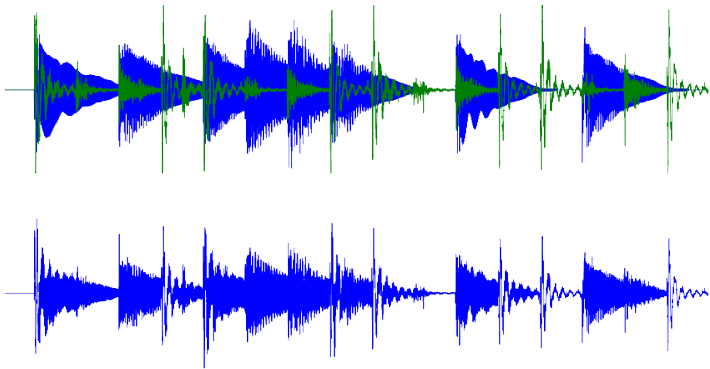# Noise Model

Results: Correlation Max
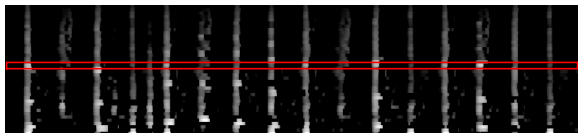
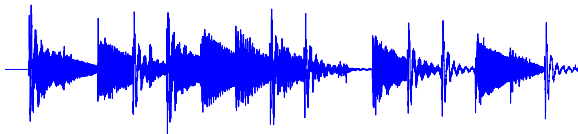# Results: KL Divergence

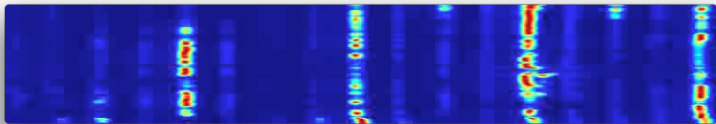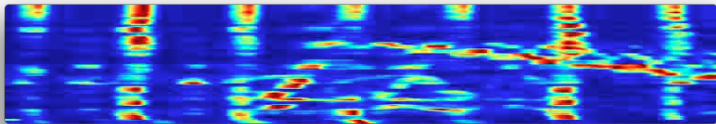# Onset Detection Function Difficulties

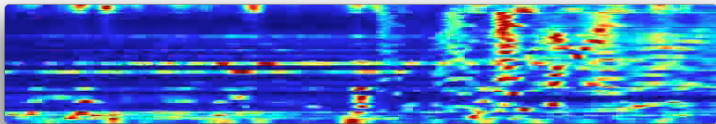# Real-World Data

Mixtures
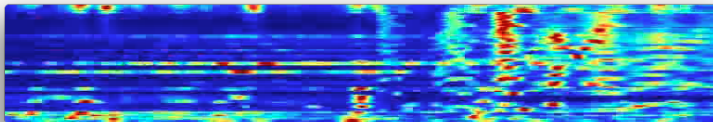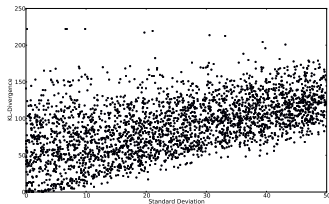
Per-Band ODF

Multi-Band Onset Correlation

Hip-Hop Example

Jazz Example

Conclusions and Future Work

Thanks!