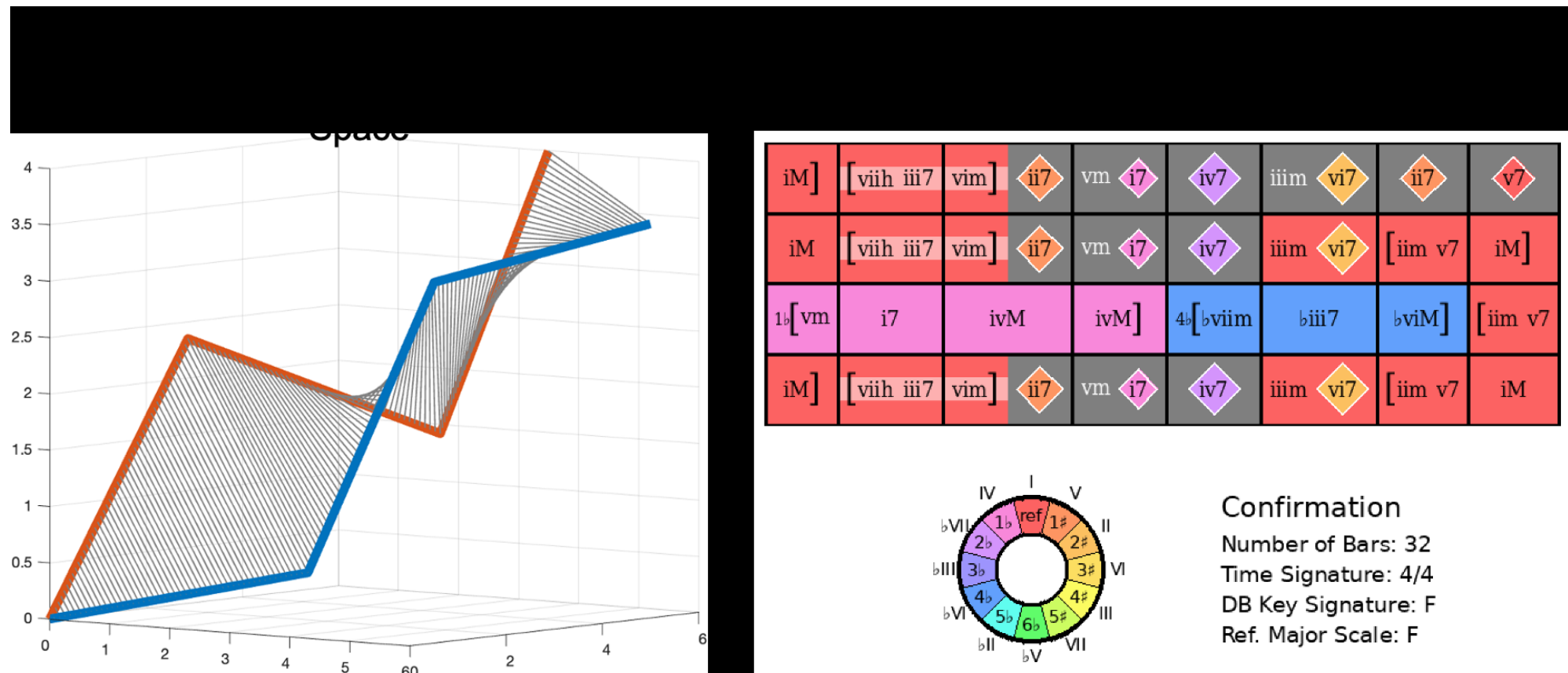# Live-Jazz Cover Song Identification

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Finding

Can language models be applied to jazz harmony? I have proposed using co-occurrence vectors to embed jazz chords, and to use them to model chord progressions in the resulting latent space. I have shown that a novel distance metric, the membrane area, is successful at measuring the harmonic similarity between songs, and useful for identifying contrafacts.

Question

As melodic improvisation is a significant component of jazz, it is not a strong identifying feature. However, improvised melodies are predominantly coherent with a song's chord progression. An open question I would like to answer is whether harmony can be used to effectively identify songs played during live jazz performances.

Supervisor(s): Simon Dixon, Bruno Di Giorgi