

# Embedding Dynamic Hypergraphs

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Real-world scenarios often require expressive data models to comprehensively capture their semantics. One example is multimodal media, that can contain text, voice, video and more in one ensemble. One data model suitable to capture such complex interdependencies in an intuitive manner are dynamic hypergraphs. While graphs have been extensively used in the area of machine learning as a data model they rarely are allowed to include n-ary relations or sequential changes over time. In this project we are developing representation learning techniques that can learn embeddings for dynamic hypergraphs. Eventually, such representations can be used for down-stream tasks like link prediction, entity clustering and pattern extraction.

**Research group:** <http://krail.cldh.uni-trier.de>