

Compositionality in Semantic Spaces

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Modelling words as vectors has been one of the most successful approaches to representing language computationally over recent years. The categorical compositional model gives an account of how to combine word vectors using formal semantics. I will give an overview of this model and will talk about a number of extensions to the model which address problems such as brittleness of representations. These extensions include applications to conceptual spaces, density matrices, and neural network models of meaning.