



**Speaker:** Martha Lewis

**Title:** Compositional Hyponymy with Positive Operators

**Abstract:**

In natural language processing words are commonly represented as vectors. However, vector representations do not intrinsically incorporate the hierarchical relationships that obtain between many words. We model words as positive operators. These have an ordering which we interpret as modelling hierarchical information. We describe a simple way of building positive operators for words, and give methods for composing these words representations to form phrases and sentences. We test the methods on simple sentence level entailment datasets.