

WWZ Research Seminar

Faculty of Business and Economics, University of Basel

Tuesday, December 6, 2022, 16:15, S15, HG, WWZ and Zoom

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## “Embedding Regression: Models for Context-Specific Description and Inference” (joint with Pedro L. Rodriguez and Brandon M. Stewart)

### Abstract

Social scientists commonly seek to make statements about how a word’s use varies over circumstances—whether that be time, partisan identity, or some other document level covariate. A promising avenue is the use of domain-specific word embeddings, that simultaneously allow for statements of uncertainty and statistical inference. We introduce the a la Carte on Text (conText) embedding regression model for this purpose. We extend and validate a simple linear method of refitting pre-trained embeddings to local contexts that requires minimal input data. It outperforms well-known competitors for studying changes in meaning across groups and time. Our approach allows us to speak descriptively of systematic differences across covariates in the context in which words appear. It also allows comments about whether a particular use is statistically significantly different to another. We provide open-source software for fitting the model.

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