

*Tristan Miller*

## **Computational analysis and translation of wordplay**

Humour and wordplay are essential aspects of human communication that computational methods have yet to master. In this talk, I present some recent advances in the computational modelling and processing of humorous wordplay aimed primarily at applications in machine- and machine-assisted translation. First, I introduce the task of automatically quantifying and ranking short texts by humorousness, and present a probabilistic approach that learns to do this by examining human preference judgments. Second, I present some computational-linguistic analyses of punning, a form of humorous wordplay based on semantic ambiguity between two phonologically similar words. This work includes methods for the automatic recognition of puns, as well as a statistical analysis of the relationship between a pun's humorousness and its linguistic features. Third, I present an interactive electronic tool for the translation of literary puns, as well as the results of an evaluation based on an empirical pilot study with human translators. I conclude with a preview of an upcoming shared task intended to foster further interdisciplinary work on automated methods and evaluation methodologies for wordplay translation.