

Professor Emily M. Bender

Linguistics, University of Washington

The Mathematics of Language

UNIVERSITY OF WASHING OR ADES 6-10 UNIVERSITY OF WASHING OR ADES 6-10 www.math.washington.edu/~mathcircle/mathmour Abstract: Mathematics can be used to model how language works and to measure the similarities and differences between different languages. From this, we can build computer software that will automatically process speech and text, for applications such as machine translation, voice activated computer interfaces, and autocorrect. In this talk, we will explore how mathematical objects called trees and feature structures, together with an operation called unification can be used to model English sentences (and also pizza preferences!). We will also learn about how computers are better at finding ambiguity in natural language than people are, but worse at

UN SEATHE CAMPUS

Savery Hall 260

March 12, 2017 Sunday, 1-2pm