

1116-91-1221 **Timmy Ma*** (timmy@math.uci.edu), Department of Mathematics, University of California, Irvine, Irvine, CA 92697, and **Natalia Komarova**. *Regularization of languages: a new mathematical framework of learning from an inconsistent source*. Preliminary report.

Continuing the discussion of how children can modify and regularize linguistic inputs from adults, we study the key features of the regularization of language. We present a new interpretation of existing algorithms to model and investigate the process of a learner learning from an inconsistent source. Our model allows us to analyze and present a theoretical explanation of a frequency boosting property, whereby the learner surpasses the fluency of the source by increasing the frequency of the most common input. (Received September 18, 2015)