Estimating divergence times for linguistic phylogenies

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The automatic inference of linguistic phylogenies has seen a massive upswing in recent years, drawing on a multitude of data sources and inference methods. Concomittantly, there is an increased interest in obtaining dates for the nodes in automatically inferred family trees.

The most influential - and controversial - proposal in this regard is the proposed dating of Proto-Indoeuropean at 8,000-9,000 years BP by Quentin Atkinson, Russell Gray and co-workers, using a Bayesian methodology.

In this talk we will have a closer look at the implicit and explicit assumptions of this line of work, as well as the inference techniques used. We will present evidence that even minor changes to Atkinson and Gray's method lead to results that place Proto-Indoeuropean at ca. 6,000 years BP, in line with the Steppe Theory rather than the Anatolian Hypothesis.

The main point of this exercise, however, is not to argue the pros and cons of the two competing hypotheses of Indoeuropean origin. Rather, we want to stress that Bayesian phylogenetics is not an oracle, revealing truths, but rather an inference techniques where the conclusions crucially, if opaquely, depend on the premises used.