



**Der Sonderforschungsbereich 991 "Die Struktur von Repräsentationen in Sprache, Kognition und Wissenschaft" lädt herzlich ein zum Vortrag  
von**

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***Phylogenetic approaches to language history and  
diversity***

There are three major scientific fields that use quantitative methods to study the evolution of complex entities: biology, anthropology, and linguistics. Conceptual parallels have encouraged cross-fertilisation among these fields regarding both the theory and the methods of the study of evolution. One of the latest instances of such cross-fertilisation is the recent adoption of phylogenetic methods from biology into anthropology and linguistics. First, this was limited to the use of statistical methods for phylogenetic tree inference, i.e. analyses of how languages are related (Nichols and Warnow 2008). More recently, methods for comparative analysis of anthropological and linguistic features on the branches of a phylogenetic tree have been adopted as well (Dunn et al. 2011; Levinson and Gray 2012). These latter type of methods can be subsumed under the phrase ‘phylogenetic comparative methods’ (Harvey and Pagel 1991).

Phylogenetic (comparative) methods can be used to investigate a range of diachronic questions, including those about 1) homelands of language families, 2) sequences of linguistic change, 3) dating language family trees, 4) rates of linguistic change, 5) correlations between linguistic features, and 6) ancestral states of linguistic features (Gray et al. 2007). In this talk I first give an overview of recent work on phylogenetic tree inference, focusing on those approaches who go beyond inferring topologies and answer questions regarding the social and geographical context of language change. Then, I illustrate the potential of phylogenetic comparative methods using a range of case studies, including examples on correlations, model testing, ancestral state reconstruction, and rates of change, using data on different features from different language families. I conclude by pointing out future developments in doing (comparative) phylogenetics in linguistics.

- Dunn, Michael, Greenhill, Simon J., Levinson, Stephen C., & Gray, Russell D. (2011). Evolved structure of language shows lineage-specific trends in word-order universals. *Nature*, 473, 79-82.
- Gray, Russell D., Greenhill, Simon J., & Ross, Robert M. (2007). The pleasures and perils of Darwinizing culture (with phylogenies). *Biological Theory*, 2(4), 360-375.
- Harvey, Paul H., & Pagel, Mark D. (1991). *The comparative method in evolutionary biology*. Oxford Oxford University Press.
- Levinson, Stephen C., & Gray, Russell D. (2012). Tools from evolutionary biology shed new light on the diversification of languages. *Trends in Cognitive Sciences*, 16(3), 167-173.
- Nichols, Johanna, & Warnow, Tandy. (2008). Tutorial on computational linguistic phylogeny. *Language and Linguistics Compass*, 2(5), 760-820.