Ancient Sounds

Reconstructing the sounds of words from the past

John Coleman, John Aston, and Davide Pigoli Phonetics Laboratory, Oxford Statistical Laboratory, Cambridge

Reinventing comparative philology

junivə:səti əv Dksfəd



Romance digits database

- "1" to "10" in Fr, Ital, Sp, AmSp, Port
- On-line language lessons etc.
- Standardized to 16-bit, 11025 Hz PCM

Modelling sound changes by "voice morphing" interpolation



http://www.phon.ox.ac.uk/ancient sounds





How would a (Fr) speaker sound in another language (Pt)? 0.6 0.8 2000 4000 0.4 6000 0.2 0.2 0.4 0.2 0.4 0.2 0.2 0.3 0.4 0.3 0.4 0.3 0.4 0.3 0.4 0.3 0.4 0

can combine features of both endpoints

Elfdalian Russ [dva] [two]

Computing most likely ancestor forms by Phylogenetic Gaussian Process Regression





Which features (canonical variates) are modelled well by trees? Canonical Function Analysis + Gaussian tree models





Ancestor spectrogram of **un*- calc. from Functional Principal Components regressed over the tree. Hadjipantelis 2013 Functional Data Analysis in Phonetics

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Shiers et al. http://arxiv.org/abs/1410.0813

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