# Metronome

## Tracing variation in poetic metres via local sequence alignment


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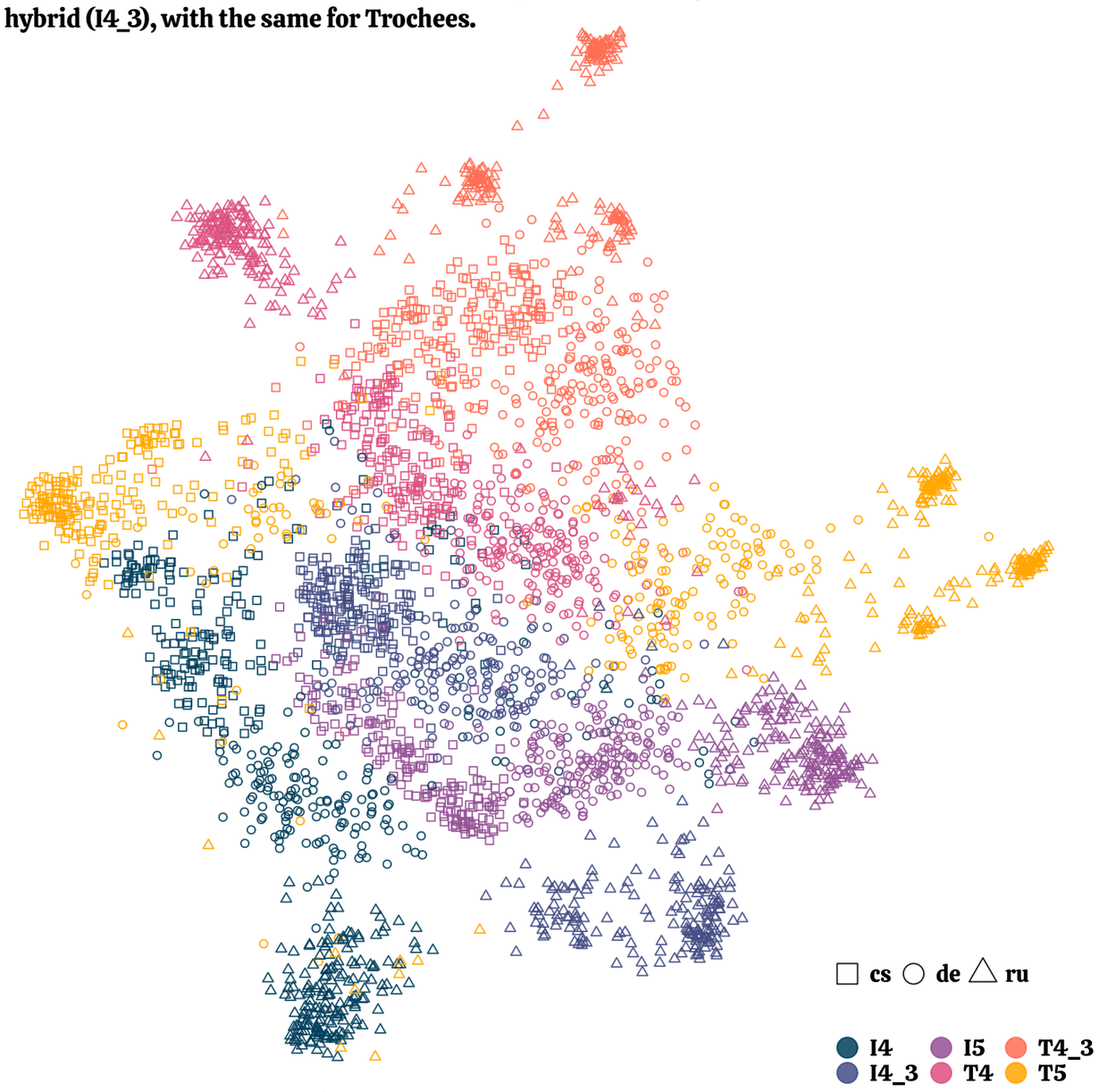
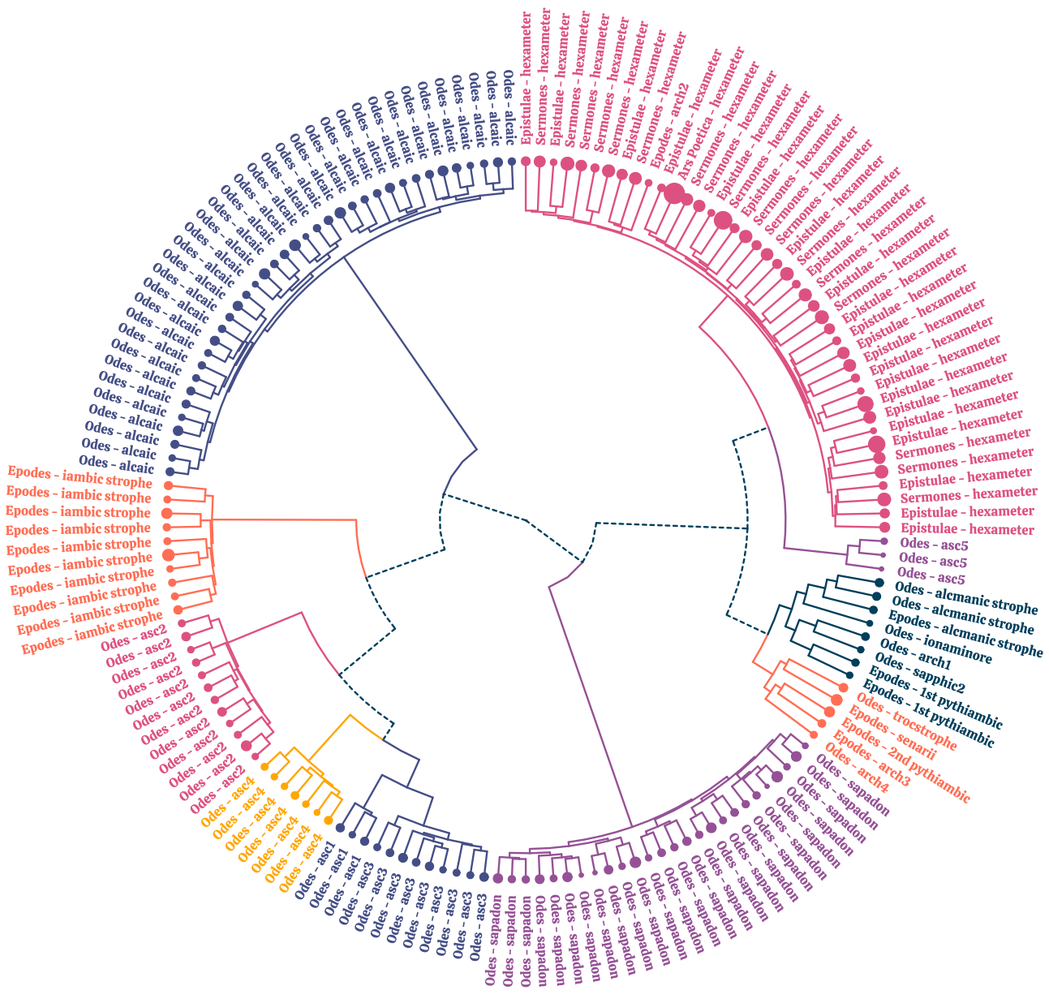
### Cluster Analysis: Czech, Russian, German

**Cluster based on six common metres: Iambic pentameter (I5), tetrameter (I4) and hybrid (I4_3), with the same for Trochees.**




### Phylogeny: Works of Horace

**Latin metre is quantitative (long and short syllables), not based on stress like modern metres, but metronome works just fine.**



### Transformation

**The metronome idea is simple. Lines are transformed into strong and weak syllables (this works for stress and quantitative metres), word breaks, and line breaks. Just four symbols, like the human genome.**

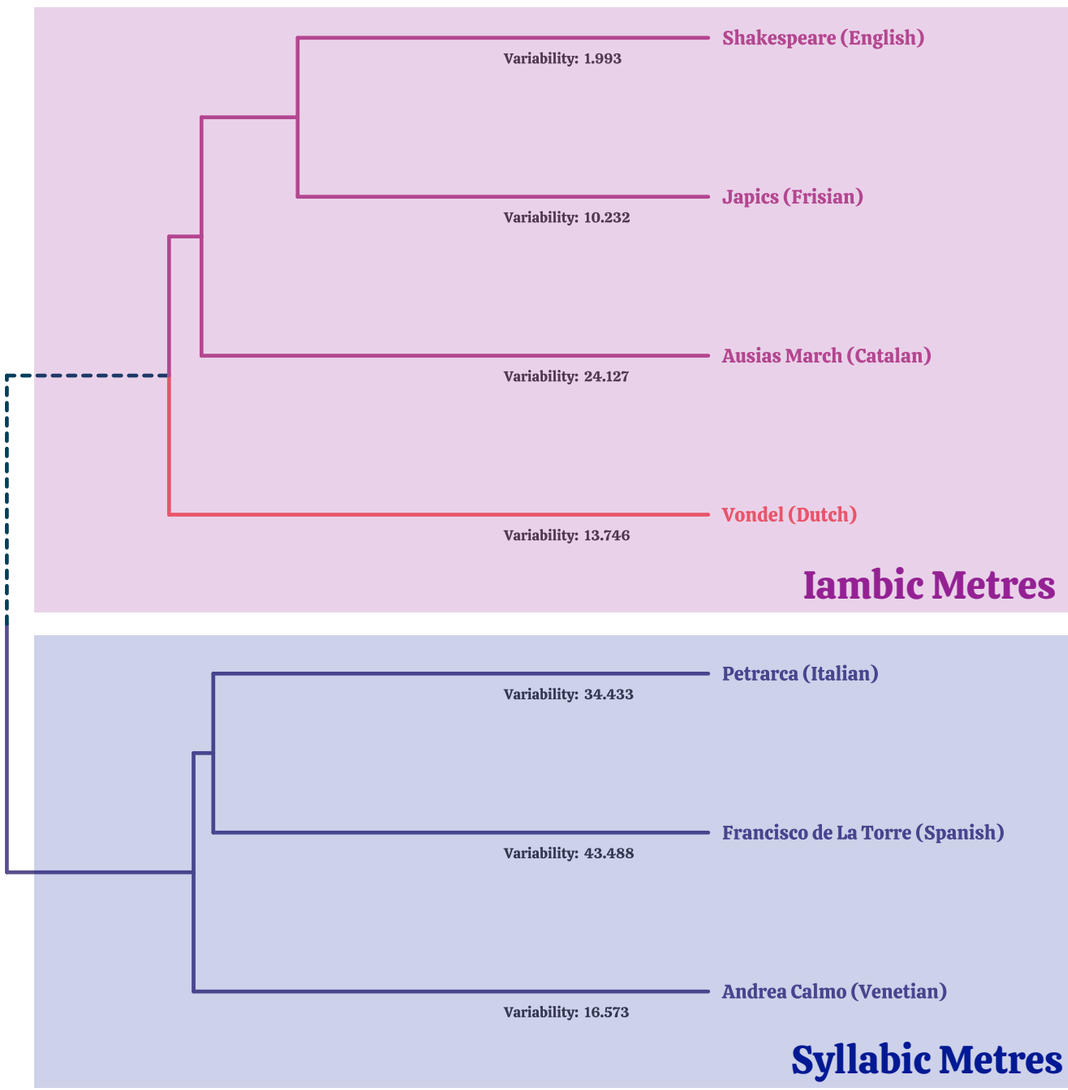
**For onely in destroying I find ease**
**To my relentless thoughts; ...**

`w.Sw.S.wSw.S.S.S.|`
`w.S.wSw.S ...`

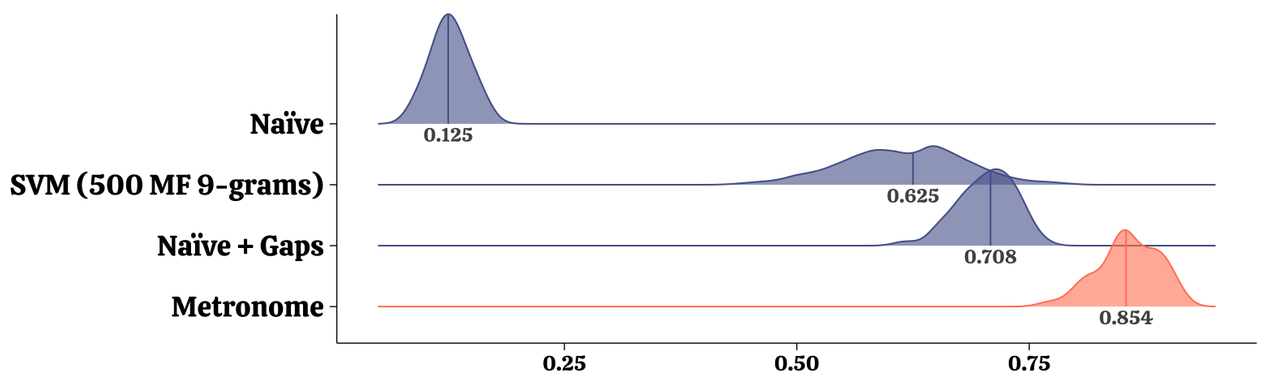
Milton, Paradise Lost, 9.129–30

### Phylogeny: Renaissance Metres

**Samples from seven Renaissance authors across multiple languages. Also included is the entropy-based variability of the inter-stress beats.**




### Evaluation: Metronome vs Others




Evaluation based on a sample of 240 poems from 12 metres, 6 modern (in Czech, German and Russian) and 6 ancient (in Latin). Results displayed are cluster accuracy (kNN n=7) and Linear SVM based on 9-gram frequencies of metrical symbols.

Multi-language poetic corpus: Poetree
https://versologie.cz/poetree

Latin Verse with scansion: Hypotactic
https://hypotactic.com/

GET THE CODE!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