

# **TOWARDS A PHYLOGENY OF GREGORIAN CHANT MELODIES**

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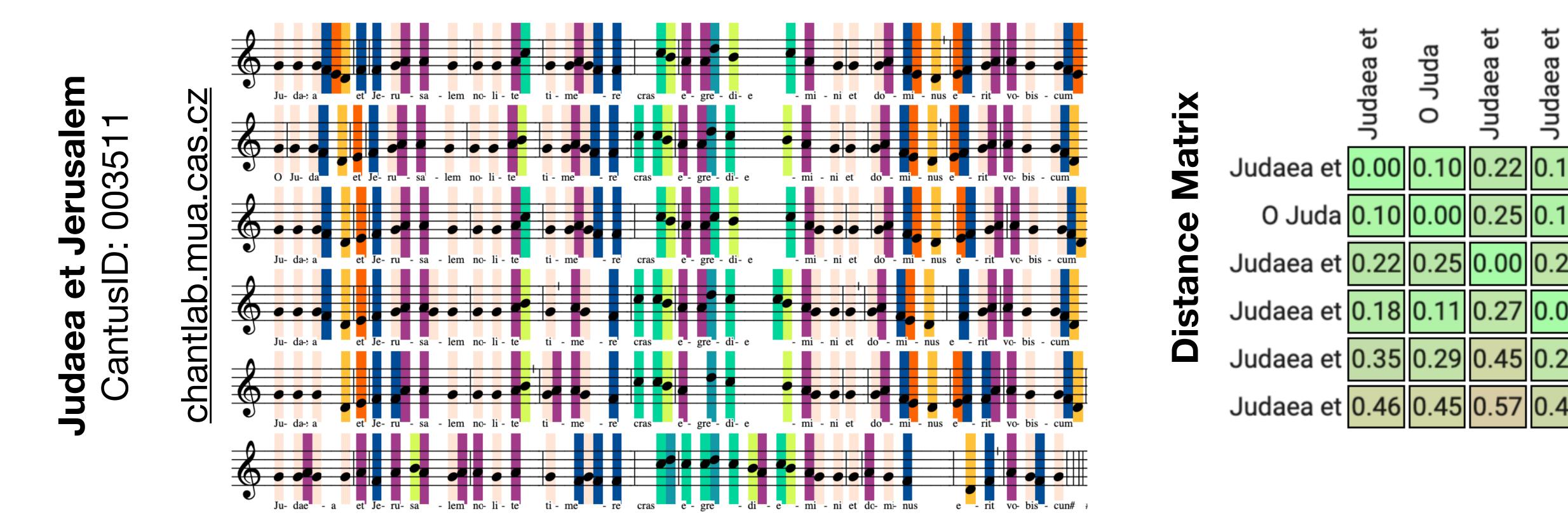
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### **EVOLUTION OF GREGORIAN CHANT MELODY?**

Chant is sacred: should always have the same melody!

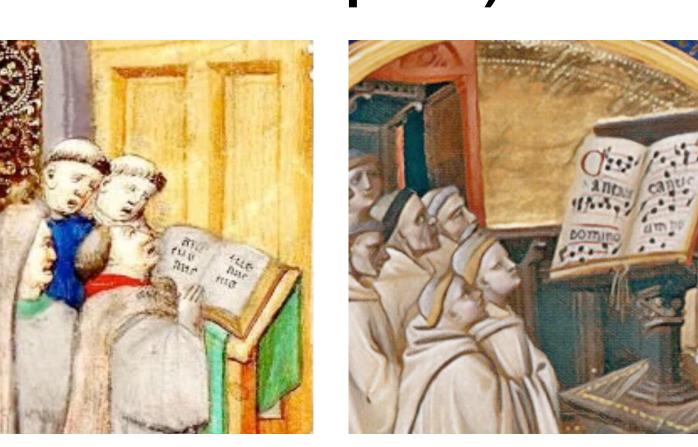
#### **BUILDING PHYLOGENIES FROM CHANT MELODIES**

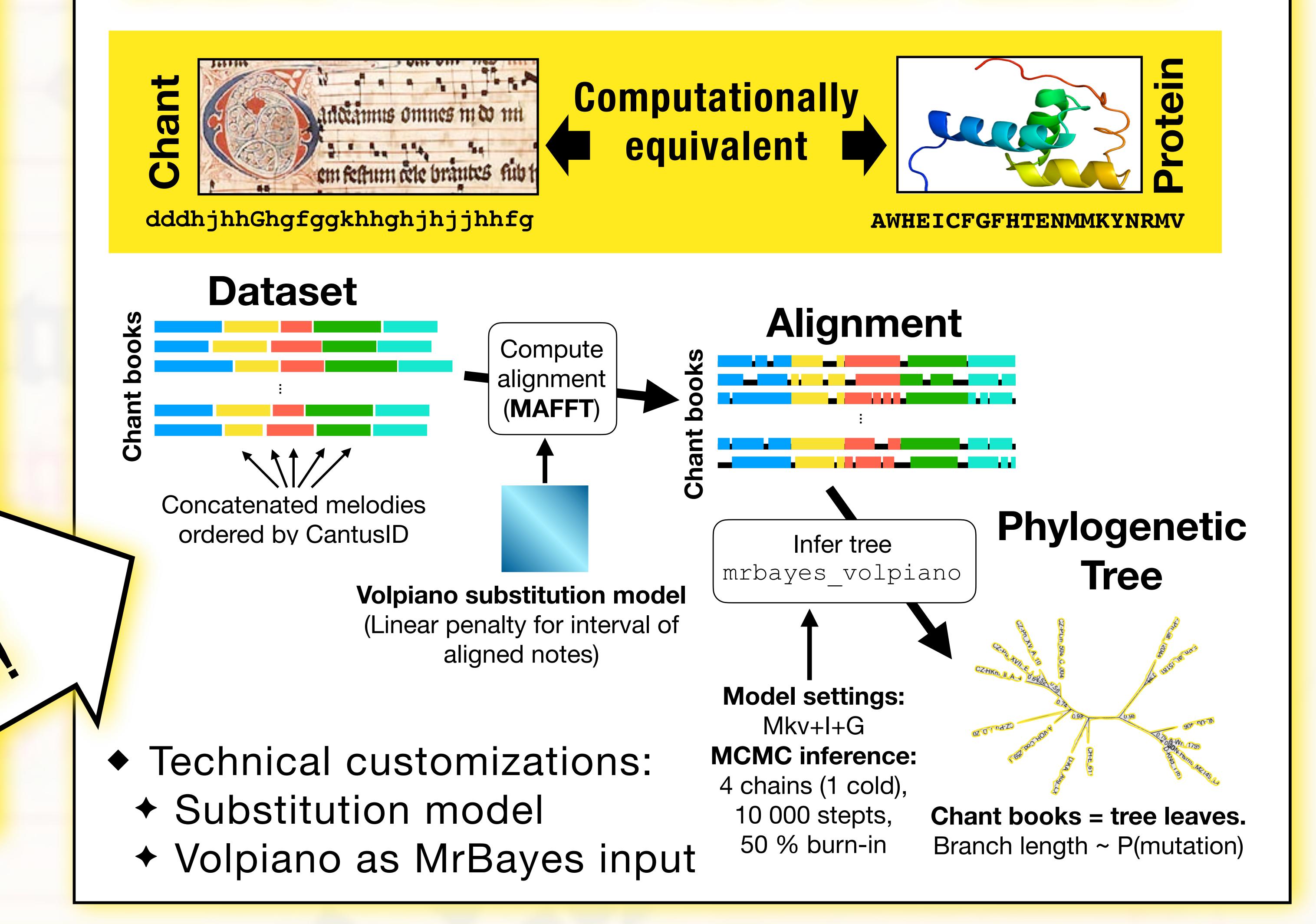
- But: imperfect transmission (memory, manuscripts)
- ♦ 800–1050 AD: oral transmission
- Staff notation: exact pitch post-1050
- Printed edition: only after 1600 AD
- Text is conserved well (Biblical...)
- Melody is rarely the same between two chant books



- Is variation in melody systematic, or noise?
- Do local or institutional "melodic dialects" exist?

### VALIDATING THE APPROACH VIA MUSICOLOGY

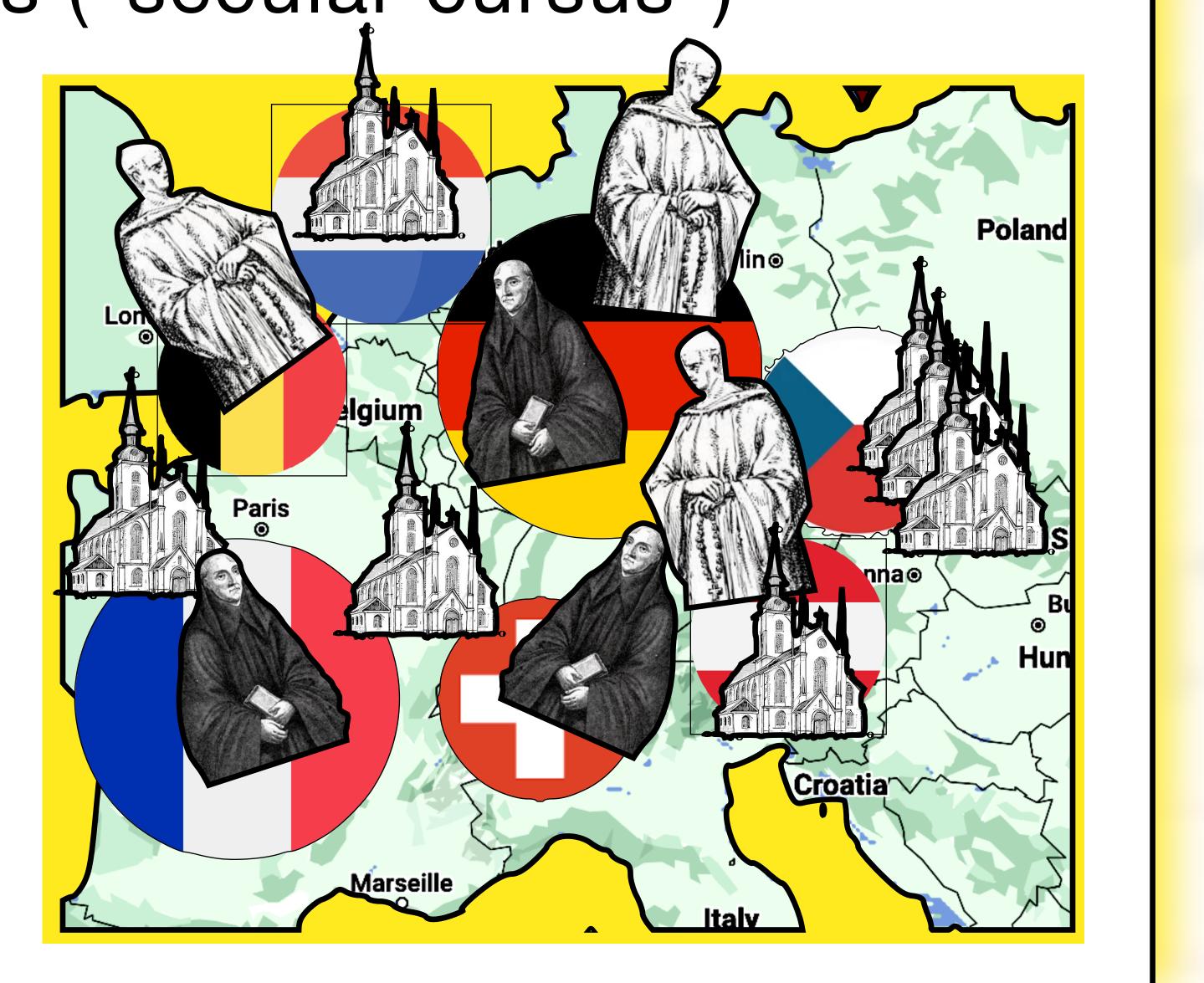




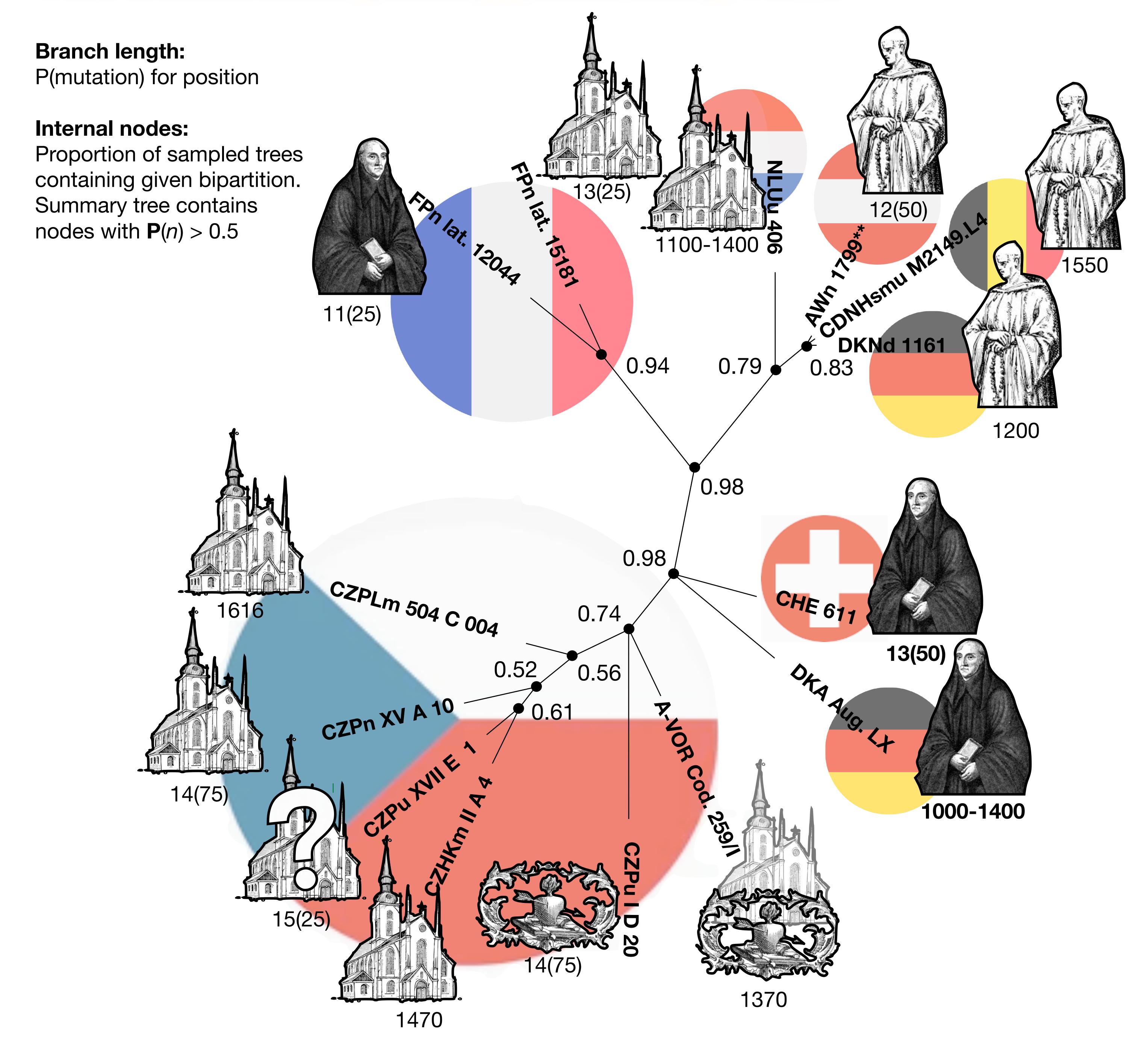
- No known correct phylogeny => no overall accuracy
- But: partial phenomena known from musicology + Cistercian sources: tight group regardless of area (rule: copy book from 1st monastery in Citeaux!) Benedictines should have a more local identity
  - (allowed copying books from closest monastery)
  - Geography should be an organizing force

## THE CHRISTMAS EVE VESPERS DATASET

- 14 sources, 6 chants (±400 notes) each Known: century & place of origin, institution 7 parish/city churches ("secular cursus")
  - 3 Cistercian
- ◆ 3 Benedictine Augustinian



#### **THE CHRISTMAS** (DATASET) (PHYLOGENETIC) **TREE**



 Hard to find: bigger data with transcribed comparable melodies (required by method)

## **ISSUES & FUTURE WORK**

- Representation: better features than melodies directly
- Requires comparable melodies, but repertoire sparse
- Chronology not explicitly incorporated
- How to interpret internal nodes?
- Manuscript copying events?
- Is evolution & a tree the right model?

- Follows "musicological sanity" constraints! Encouraging.
  - ✦ Geographical gradient,
- Cistercian sources tight group regardless of area
- **Benedictine** sources spread according to area
- New insight: A-VOR Cod. 259/I is from "Canons Regular" house — historical relationship to Augustinians

1/-// GENOME OF MELODY

Acknowledgments

Czech Science Foundation project no. 19-28306X "Old Myths, New Facts".

Genome of Melody project, supported by the John Templeton Foundation project Cultural Evolution Society Transformation Fund #61913. The opinions expressed in this publication are those of the author(s) and do not necessarily reflect the views of the John Templeton Foundation OLD MYTHS **OMNF** NEW FACTS