

# Introduction to Musical Corpus Studies

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Musikwissenschaftliches Seminar - Universität zu Köln - WS 2020/21

# Today

Introduction (16:00–17:20)

- I. What are Musical Corpus Studies?
- II. Issues
- III. Examples
- IV. Organization of the course
- V. Questions

— *Break* —

Melody I (17:40–19:00)

# I. What are Musical Corpus Studies

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## II. Issues

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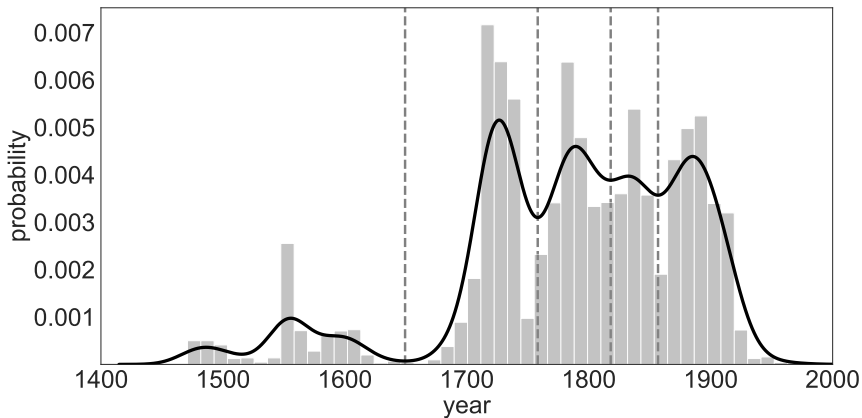
### III. Examples

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Harasim, D., Moss, F. C., Ramirez, M., & Rohrmeier, M. (in press). Exploring the foundations of tonality: Statistical cognitive modeling of modes in the history of Western classical music. *Humanities & Social Sciences Communications*

## Research questions

1. How can the concept of a mode be operationalized?
2. How can we find modes automatically?
3. Can we do it without knowing how many modes there are and what they look like?
4. How do modes change historically?



**Figure 1:** Historical distribution of pieces in the corpus.



# The model and its assumptions

1. pieces can be represented by pitch-class counts
2. enharmonic equivalence
3. transpositional invariance

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⇒ explicit modeling

# Automatically finding modes

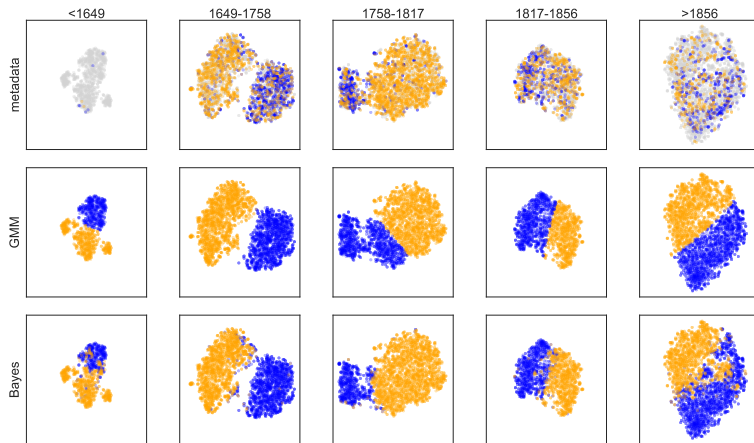
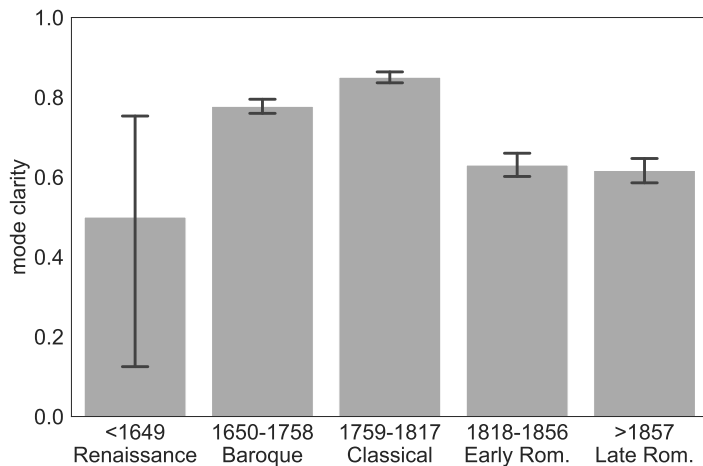


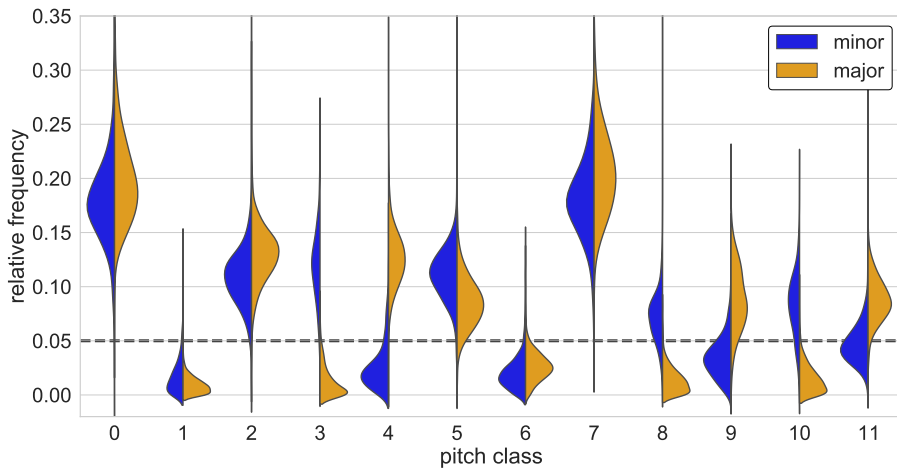
Figure 2: Three models for automatic mode finding.

## Quality of the model



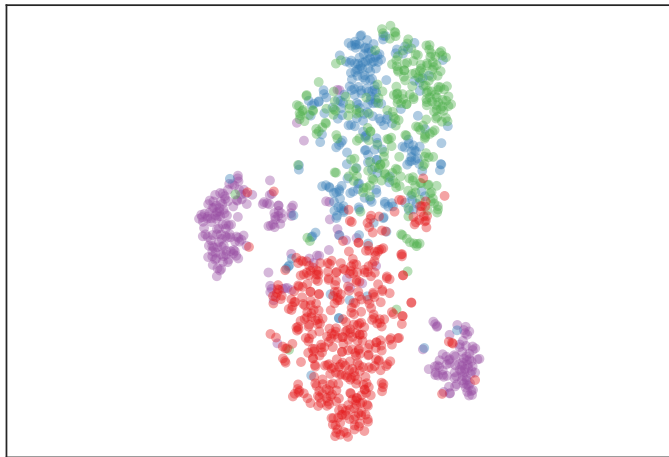
**Figure 3:** Accuracy scores of our model in five historical periods.

## The major and minor modes



**Figure 4:** Pitch-class distribution of the major and minor modes.

## Modes in the Renaissance



**Figure 5:** Clustering into four modes in the Renaissance.

# Modes in the Renaissance

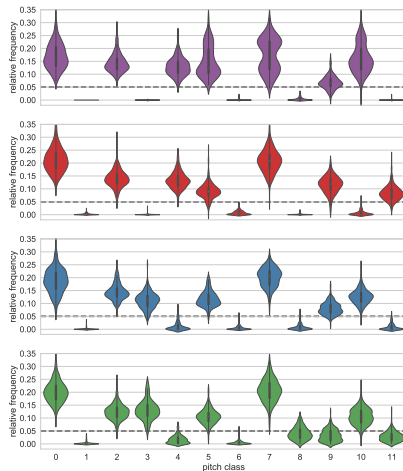


Figure 6: Pitch-class distribution of Renaissance modes.



## IV. Course organization

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# Resources

- main organization via ILIAS
- literature
- forum
- Zoom link (you are all here)
- external website: <https://fabianmoss.github.io/intro-corpusmus>
  - general info
  - course materials (updated after each session)
- HfMT students: by your group members

- 3 CPs = 90 SWS
  - 24 SWS presence in seminar
  - 24 SWS preparation of and follow-up on course materials
  - 42 SWS reading of literature and writing of report

## Group work

- you will meet with your group in the breakout rooms
- discussions
- exercises

- report due on **31 January 2021, 23:59h**
- 6–8 pages
- suggested structure
  1. Introduction
  2. Discussion
  3. Issues
  4. Various
  5. Contributions

## References

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Harasim, D., Moss, F. C., Ramirez, M., & Rohrmeier, M. (in press). Exploring the foundations of tonality: Statistical cognitive modeling of modes in the history of Western classical music. *Humanities & Social Sciences Communications*.