# Palestrina Pal



A NATIONAL SCIENCE FOUNDATION ENGINEERING RESEARCH CENTER



# a grammar checker for music compositions in the style of Palestrina

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#### the graphical user interface

<u>Customization</u>: click check boxes to select the types of rules violations to be checked. The rules are grouped into three types:

Harmonic - pink Melodic - yellow Rhythmic -green

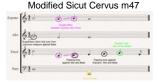
**Error Detection and Display**: 100% accuracy. All errors highlighted and color-coded.

<u>Error Correction</u>: modify, delete, and insert in text fields or the keyboard interface.

## OOP design

#### role in IMSC

Advance human-computer interaction in Computer-aided composing (CAC)



### research goals and approach

A Java-based composition tool using Guido music notation, Palestrina Pal:

- automatically checks for violation of counterpoint rules
- color-coded highlights indicate errors in graphical user interface
- mimics the human evaluation process
- allows composers to focus on higher level issues of musical aesthetics



#### inspiration Giovanni Pierluigi da *Palestrina* (1525-1594)

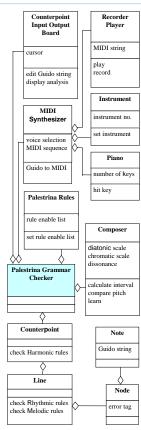
• brought Renaissance counterpoint to its peak of beauty and expressiveness.

#### uniqueness and related work

- a composition tool that assists composers to create better Palestrina style compositions.
- put to practical use in the music classroom.
- first such system developed for the automatic evaluation of Palestrina style compositions.
- Other computational work on Palestrina style compositions by Farbood and Schoener (2001) focus only on the synthesis of Palestrina style compositions using Markov models.

#### conclusion and future work

- present opportunities for improving the teaching of counterpoint
- evaluate algorithmic counterpoint compositions
- incorporate secondary rules
- generate recommendations for correct alternatives



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