

Working seminar around the SMIR Projet

Structural Music Information Research

IRMA, salle des séminaires

Wednesday 14 May 2025

10h-17h

PROGRAM

This working seminar offers an overview of several active research directions on symbolic and signal-based music information research. The morning sessions will explore several theoretical perspectives, including some music-analytical computational approaches based on mathematical morphology and machine learning applied to the problem of source separation. In the afternoon, presentations will shift toward the mathematical and computational modeling of rhythmic structures (such as the theory of balanced rhythms, rhythmic tilings and trees representations) and will also delve into aspects of the categorical approach in music theory and analysis.

- 10.00-10.40: Paul Lascabettes (IRMIA++&CREAA/University of Strasbourg) – A short Introduction to Mathematical Morphology applied to the Discovery of Musical Patterns
- 10.40-11.00: Mathys Daniel (ATIAM, Ircam/Sorbonne University) – Application of Mathematical Morphology to the Discovery of Polymetric Structures

- 11.15-11.45: Paul Magron (INRIA Nancy) – Machine learning for music separation: combining data-driven models and expert knowledge
- 11.45-12.00: Charles Franchi (Machine Learning & Data Mining, University of Saint-Etienne) – Machine Learning & Mathematical Morphology Applied to Music

--- Lunch break ---

- 14.00-14.45: Jason Yust (Boston University) – Applications of Fourier Transforms in Pitch and Rhythmic Spaces
- 14.45-15.15: Paul Lascabettes (IRMIA++&CREAA/University of Strasbourg) & Moreno Andreatta (CNRS IRMA/University of Strasbourg) – Balanced Rhythms and Open Mathematical Problems

- 15.30-16.00: Florent Jacquemard (INRIA Paris) – MIDI-to-Score Music Transcription Generating Tree-Structured Representations of Music Notation
- 16.00-16.30: Matias Rosales (HEAR/Conservatory of Strasbourg & Collège Glarean / University of Strasbourg) – Rhythmic Tiling Canons and Computer-Aided Composition
- 16.30-17.00: Alexandre Popoff (University of Strasbourg) – Category Theory and Music