# 10T1: Beyond Audio Signal Processing in Music Applications

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- Audio signal processing beyond this course
- Beyond audio signal processing

# Audio signal processing beyond this course

- Detection/estimation of sinusoids
- Partial tracking
- Transient modeling
- Multi-resolution
- Residual analysis/modeling
- Synthesis of sinusoids and noise

- Other sound modeling approaches

# Beyond audio signal processing

- Other music signals/data
    - Scores, lyrics
    - Gestures, video
    - Contextual and community information
- Data processing methods
    - Statistical analysis
    - Pattern analysis
    - Machine learning
- Semantic technologies
    - Network analysis
    - Ontologies
- User-centered studies
    - Perception and cognition
    - Human-computer interaction

# References and credits

- http://mtg.upf.edu/technologies/sms

- "Roadmap for Music Information ReSearch": http://mtg.upf.edu/node/2737

- http://en.wikipedia.org/wiki/Statistics

- http://en.wikipedia.org/wiki/Machine_learning

- http://en.wikipedia.org/wiki/Knowledge_representation_and_reasoning

- http://en.wikipedia.org/wiki/Music_psychology

- http://en.wikipedia.org/wiki/Human-computer_interaction

- Slides released under CC Attribution-Noncommercial-Share Alike license and available from https://github.com/MTG/sms-tools

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