

ISMIR 2007

**8th International Conference on Music
Information Retrieval**



PROGRAMME GUIDE

September 23-27, 2007
Vienna University of Technology
Vienna, Austria

<http://ismir2007.ismir.net>



ORGANISERS

ISMIR 2007 is jointly organised by the Department of Software Technology and Interactive Systems, Vienna University of Technology (VUT); the Department of Computational Perception, Johannes Kepler University, Linz; the Austrian Research Institute for Artificial Intelligence (OF AI), Vienna; and the Austrian Computer Society (OCG).



www.ifs.tuwien.ac.at/mir



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COMPUTER GESELLSCHAFT
AUSTRIAN
COMPUTER SOCIETY

www.ocg.at

ISMIR 2007 PROGRAMME GUIDE

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ORGANISATION COMMITTEE

▪ **General Chairs:**

- Stephen Downie (University of Illinois at Urbana-Champaign)
- Andreas Rauber (Vienna University of Technology)
- Gerhard Widmer (Johannes Kepler University Linz and Austrian Research Institute for Artificial Intelligence)

▪ **Programme Chairs:**

- Simon Dixon (Queen Mary, University of London)
- David Bainbridge (University of Waikato)

▪ **Tutorials Chair:**

- Fabien Gouyon (INESC, Porto)

▪ **Local Organising Committee**

- Jakob Frank (Vienna University of Technology)
- Martin Gasser (Austrian Research Institute for Artificial Intelligence)
- Thomas Lidy (Vienna University of Technology)
- Rudolf Mayer (Vienna University of Technology)
- Robert Neumayer (Vienna University of Technology)
- Andreas Pesenhofer (e-Commerce Competence Center)
- Rainer Typke (Austrian Research Institute for Artificial Intelligence)

PROGRAMME COMMITTEE

- Michael Casey (Goldsmiths College, University of London)
- Elaine Chew (University of Southern California)
- Roger Dannenberg (Carnegie Mellon University)
- Stephen Downie (University of Illinois)
- Dan Ellis (Columbia University)
- Ichiro Fujinaga (McGill University)
- Masataka Goto (National Inst. of Advanced Industrial Science and Technology)
- Özgür İzmirlı (Connecticut College)
- Anssi Klapuri (Tampere University of Technology)
- Paul Lamere (Sun Microsystems)
- Kjell Lemström (University of Helsinki)
- Connie Mayer (University of Maryland)
- Mark Sandler (Queen Mary, University of London)
- Xavier Serra (Universitat Pompeu Fabra)
- George Tzanetakis (Victoria University)

VENUE

The conference venue is the

Vienna University of Technology (TU Wien).

The conference is being held in the **FREIHAUS** building.

The exact address of the conference location is:

**TU Wien - Freihaus
Wiedner Hauptstrasse 8-10
1040 Wien**

The venue is located near the center of Vienna, easily reachable through the **subway station KARLSPLATZ (subway lines U1, U2, and U4).**

The venue can also be reached by tram lines 62 and 65 (stop "Resselgasse") and bus line 59A (stop "Bärenmühl-durchgang").

The map on page 10 gives an overview of the area.



Library building in front of the Freihaus



Freihaus building: the conference venue

GENERAL INFORMATION

▪ Registration

The registration desk is located in the Freihaus building on the 1st floor, in the red area, in front of HS 1 (the main lecture room). Refer to the map on page 11 for its location.

Registration is possible on every day of the conference (Sunday to Thursday), starting 8.30 am.

▪ Name Badges

Conference attendees are required to wear their badges while in the conference area and during social events, in order to facilitate identification of registered participants.

▪ Speakers & Presentations

Speakers are requested to contact the Session Chair or Technical Assistant before their session. Presentations should be copied to the presentation computers in the break before the respective session at the latest.

▪ Information & Contact

Notice-boards and an information desk are located near the registration area on the 1st floor (red area – see map on page 12). Additionally, you may call the **ISMIR hotline: +43 1 58801 18823**

▪ Lunch

Lunch is included in the registration fee and is served in the Mensa inside the conference venue. The entrance is on the 1st floor, yellow area.

▪ Meeting Room

A meeting room is available for small group meetings. Please contact the information desk for reservations.

ROOM ASSIGNMENTS

The Lecture Rooms are denominated with **HS** and a number. (HS stands for HÖRSAAL which is also indicated at the entrance to the rooms).

ISMIR is held in the following rooms:

HS 1

Single Track Sessions
Parallel Sessions B

HS 6

Parallel Sessions A
Tutorial 1 (Müller, Dannenberg)
Tutorial 2 (Celma, Lamere)

HS 7

Tutorial 3 (Lartillot)
Tutorial 4 (Hirata, Tojo, Hamanaka)

HS 1 is accessible from both the 1st and 2nd floor, all other rooms only from the 2nd floor.

The Poster & Demo Session takes place in the hallways on the 2nd floor.

The Lunch area is on the 1st floor, yellow area.

Please refer to the maps on pages 10-12 for locating the rooms.

INTERNET ACCESS

▪ **Wireless (WLAN)**

The conference venue is covered by a wireless local area network (WLAN) (except for the lunch area). The network is 'hidden' so the following manual settings are required:

Details will be provided on-site.

▪ **Internet Lab**

The Internet Lab in Freihaus, 2nd floor, yellow area, can be used by ISMIR attendees. Refer to the map on page 12 for the location of the Lab.

The PCs run with Fedora Core 4 Linux. Open Office is available, MS Office Software is provided via a Citrix Terminal Server.

You can find a complete list of installed software here:
http://www.zid.tuwien.ac.at/student/internet_raeume/software/

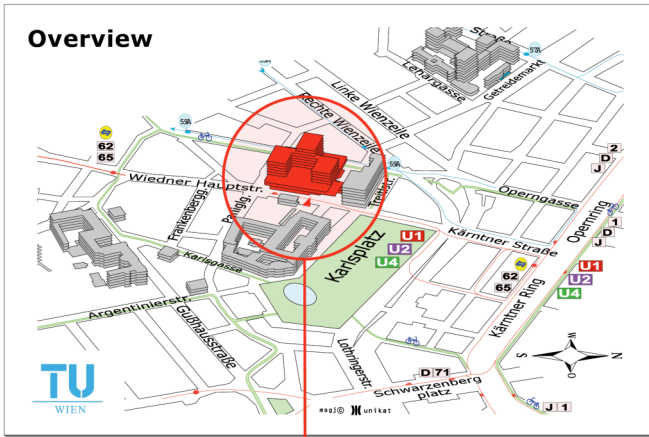
Please note that all data stored by a user will be deleted after rebooting the computer.

A small number of LAN connections marked with this logo are available for a wired internet connection for laptop computers. The login procedure is equivalent to the one described for WLAN.

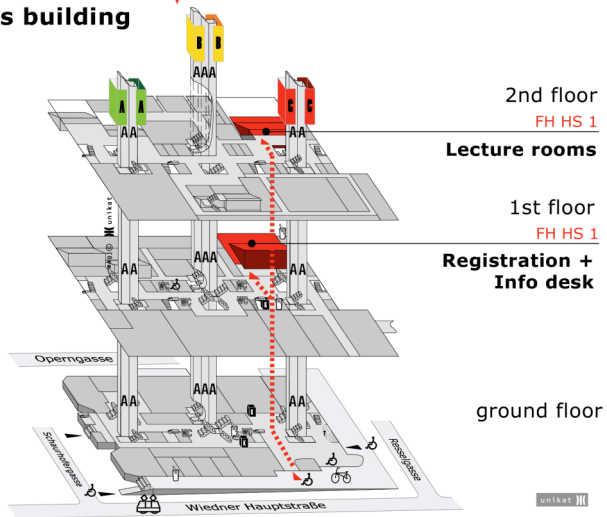


Freihaus Building

Overview and 3D View



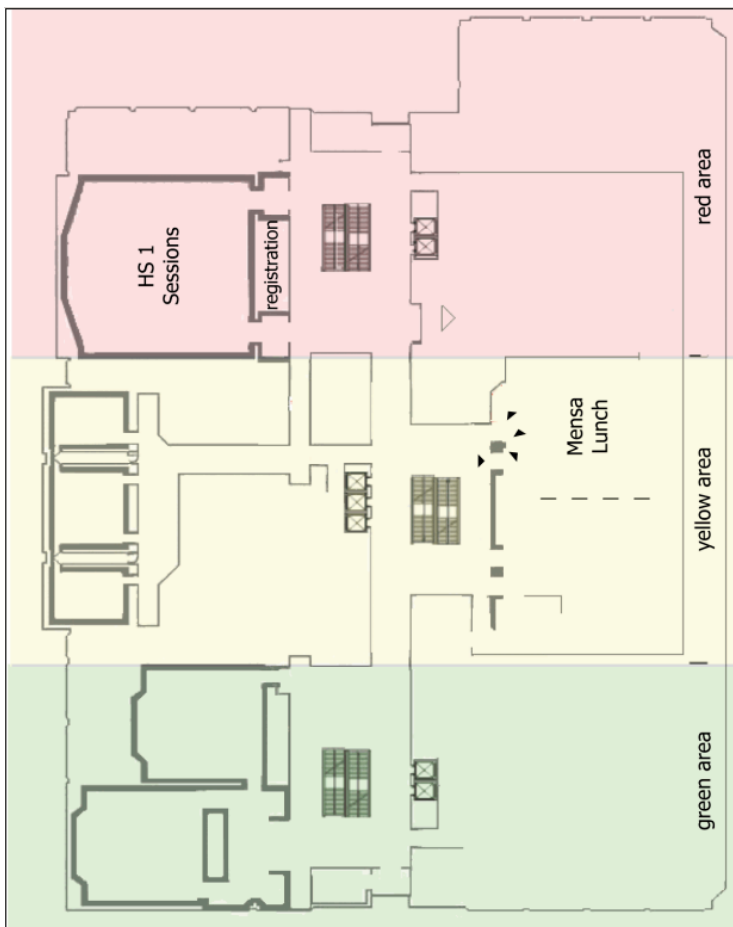
Freihaus building



Freihaus Building

FIRST FLOOR

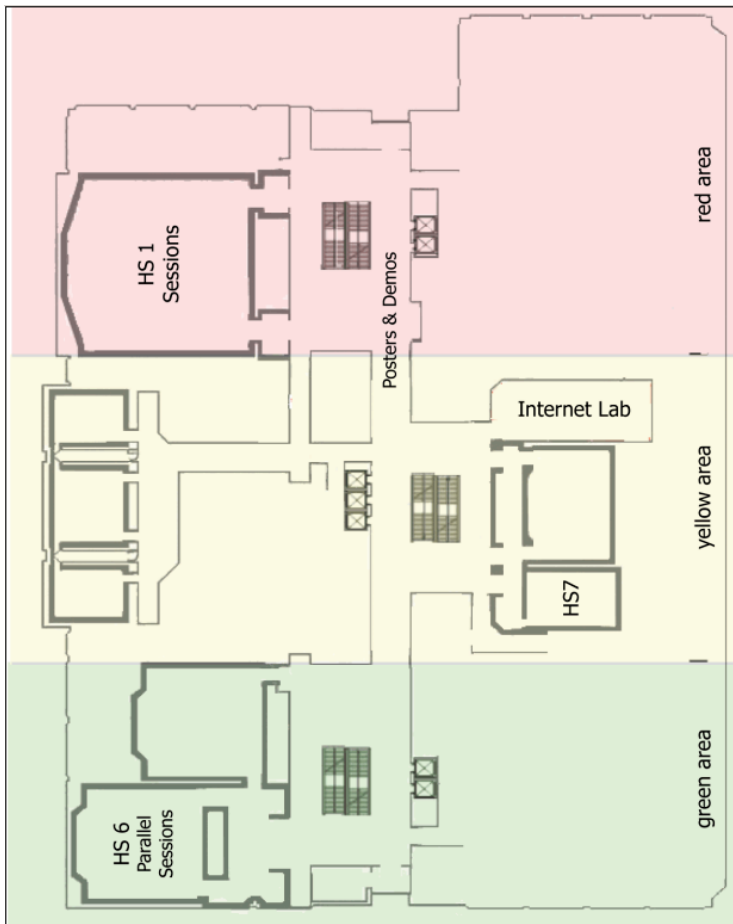
Registration + Information desk
Access to HS 1 (Sessions), Lunch area



Freihaus Building

SECOND FLOOR

Lecture Rooms HS 1, HS 6 and HS 7
Poster & Demo area, Coffee Breaks, Internet Lab



PROGRAMME OVERVIEW

Sunday Sep. 23	Monday Sep. 24	Tuesday Sep. 25	Wednesday Sep. 26	Thursday Sep. 27
10.00-13.00 Tutorial 1 HS 6 10.00-13.00 Tutorial 3 HS 7	9.15-9.25 Introductory remarks and announcements HS 1 9.25-10.15 Similarity 1 HS 1	9.00-10.15 Invited speaker: Mike Carroll HS 1	9.00-10.15 Semantics and Ontologies HS 1	9.00-10.15 Performance, User Access and OMR HS 1
	10.45-12.20 Self-Similarity and Structure HS 6 12.00-14.00 Lunch	10.15-10.45 Morning Tea 10.45-12.05 Gene Classification HS 1 14.00-15.30 Recommendation HS 1	10.15-10.45 Morning Tea 10.45-12.20 Instruments HS 6 12.00-14.00 Lunch	10.15-10.45 Morning Tea 10.45-12.20 Classification HS 6 12.00-14.00 Lunch
15.00-18.00 Tutorial 2 HS 6 15.00-18.00 Tutorial 4 HS 7	15.30-16.30 Coffee & Poster Session 1 second floor 16.30-18.00 Tonality HS 1	14.00-15.30 Alignment and Segmentation HS 1 15.30-16.30 Coffee & Poster Session 2 second floor 16.30-18.00 Transcription and Multipitch Estimation HS 1	14.00-15.30 Panel: MIREX 2007 HS 1 15.30-16.30 Coffee & Poster Session 3 second floor 16.30-18.00 Similarity 2 HS 1	
18.15 Ice Breaking	from 19.00 Welcome Reception	from 19.30 Conference Banquet at Rathaus		

TUTORIALS

The ISMIR 2007 tutorials take place on **Sunday, September 23rd**.

Sun, 10:00-13:00 (Room HS 6): Tutorial 1: Synchronization and Matching Techniques for Music Data

by Meinard Müller and Roger B. Dannenberg

Modern digital music libraries contain large amounts of textual, visual, and audio data as well as a variety of associated data representations, which describe music at various semantic levels. Typically, for a single musical work, there is a large number of relevant digital documents, which are given in various digital formats and in multiple realisations. For example, in the case of Beethoven's Fifth Symphony, a digital music library may contain the scanned pages of some particular score edition. Or the score may be given in a digital music notation file format, which encodes the page layout of sheet music in a machine-readable form. Furthermore, the library may contain various CD recordings such as the interpretations by Karajan and Bernstein, some historical recordings by Furtwängler and Toscanini, Liszt's piano transcription of Beethoven's Fifth played by Glenn Gould, as well as a synthesised version of a corresponding MIDI file. On the one hand, this complexity and heterogeneity of music data make content-based browsing and retrieval in digital music libraries a challenging task. On the other hand, the availability of different semantically interrelated representations can be exploited to ease many music processing tasks, e.g., by using high-level symbolic information as a-priori knowledge in audio processing tasks. In this tutorial, we will give a detailed overview of state-of-the-art MIR techniques for automatic music alignment, synchronisation, and matching. The common goal of these tasks is to automatically link several types of music representations, thus coordinating the multiple information sources related to a given musical work.

Sun, 10:00-13:00 (Room HS 7): Tutorial 3: Introduction to MIRToolbox

by Olivier Lartillot

MIRtoolbox is an integrated set of functions written in Matlab, dedicated to the extraction of musical features from audio files. The tutorial will provide an overview of the set of features that can be extracted with MIRtoolbox, illustrated with specific examples. The objective is to offer both a synthesis of the approaches in musical feature extraction from audio, and a detailed introduction to the toolbox. We will first describe the elementary mathematical operators commonly used for feature extraction (FFT, autocorrelation, filterbank, etc.) and show how advanced techniques can be applied directly to these operators in order to improve the results and fit them to particular purposes. A detailed overview of the numerous features available in MIRtoolbox will then be given, structured according to the main musical dimensions (pitch, tonality, rhythm, timbre, form, etc.). The tutorial will explain how to perform these operations in the Matlab environment, and how to benefit from the diverse options available for each feature extractor. Examples will show how to perform the different successive steps of these analyses using a series of simple commands. Distinctive aspects of the toolbox will be highlighted and illustrated, such as the simplicity and adaptability power of the syntax. Various tools for statistical analysis, segmentation and clustering will be presented. Finally, we will explain how to write new functions that can take benefit from the building blocks offered by the toolbox, and that can be articulated with other Matlab toolboxes.

Sun, 15:00-18:00 (Room HS 6): Tutorial 2: Music Recommendation

by Oscar Celma and Paul Lamere

As the world of online music grows, music recommendation systems become an increasingly important way for music listeners to discover new music. Commercial recommenders such as last.fm and Pandora have enjoyed commercial and critical success. But how well do these systems really work? How good are the recommendations? How far into the 'long tail' do these recommenders reach? In this tutorial we look at the current state-of-the-art in music recommendation. We examine current commercial and research systems, focusing on the advantages and the disadvantages of the various recommendation strategies. We look at some of the challenges in building music recommenders and we explore some of the ways that MIR techniques can be used to improve future recommenders.

Sun, 15:00-18:00 (Room HS 7): Tutorial 4: Techniques for Implementing the Generative Theory of Tonal Music

by Keiji Hirata, Satoshi Tojo and Masatoshi Hamanaka

This tutorial on Techniques for Implementing GTTM will summarise the entire body of work related to computational approaches to the GTTM and report it in a comprehensive way to MIR researchers and computational musicologists. If one wants to realise MIR based on musical semantics, the techniques used for implementing GTTM can provide a powerful tool. Furthermore, the tutorial will put a special focus on perspectives for future deployments, and discussion will be encouraged with experts in the audience.

CONFERENCE PROGRAMME

MONDAY, SEPTEMBER 24, 2007

**Mon 09:00-09:25 (Room HS 1):
Opening Session:
Welcome and Announcements**

**Mon 09:25-10:15 (Room HS 1):
Session 1 – Similarity 1
(Session Chairs: Gerhard Widmer, Andreas Rauber)**

- **Fuzzy Song Sets for Music Warehouses**
François Deliège, Torben Bach Pedersen
Long paper
- **Music Clustering with Constraints**
Wei Peng, Tao Li, Mitsunori Ogihara
Long paper

**Mon 10:45-12:20 (Room HS 6):
Parallel Session 2A -
Self-Similarity and Structure
(Session Chair: Dan Ellis)**

- **Sequence Representation of Music Structure Using Higher-Order Similarity Matrix and Maximum-Likelihood Approach**
Geoffroy Peeters
Long paper
- **Algorithms for Determining and Labelling Approximate Hierarchical Self-Similarity**
Christophe Rhodes, Michael Casey
Long paper

- **Transposition-Invariant Self-Similarity Matrices**
Meinard Müller, Michael Clausen
Short paper
- **A Supervised Approach for Detecting Boundaries in Music Using Difference Features and Boosting**
Douglas Turnbull, Gert Lanckriet, Elias Pampalk, Masataka Goto
Short paper
- **Automatic Derivation of Musical Structure: A Tool for Research on Schenkerian Analysis**
Alan Marsden
Short paper

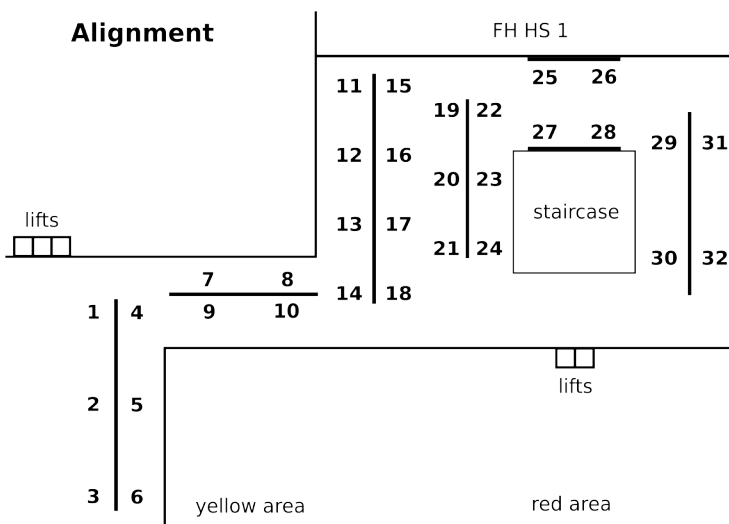
**Mon 10:45-12:05 (Room HS 1):
Parallel Session 2B - Genre Classification
(Session Chair: George Tzanetakis)**

- **Improving Genre Classification by Combination of Audio and Symbolic Descriptors Using a Transcription System**
Thomas Lidy, Andreas Rauber, Antonio Pertusa, José M. Iñesta
Long paper
- **Exploring Mood Metadata: Relationships with Genre, Artist and Usage Metadata**
Xiao Hu, J. Stephen Downie
Long paper
- **How Many Beans Make Five? The Consensus Problem in Music-Genre Classification and a New Evaluation Method for Single-Genre Categorisation Systems**
Alastair J. D. Craft, Geraint A. Wiggins, Tim Crawford
Short paper
- **Bayesian Aggregation for Hierarchical Genre Classification**
Christopher DeCoro, Zafer Barutcuoglu, Rebecca Fiebrink
Short paper

**Mon 14:00-15:30 (Room HS 1):
Session 3 - Recommendation
(Session Chair: Paul Lamere)**

- **Finding New Music: A Diary Study of Everyday Encounters with Novel Songs**
Sally Jo Cunningham, David Bainbridge, Dana McKay
Long paper
- **Improving Efficiency and Scalability of Model-Based Music Recommender System Based on Incremental Training**
Kazuyoshi Yoshii, Masataka Goto, Kazunori Komatani, Tetsuya Ogata, Hiroshi G. Okuno
Long paper
- **Virtual Communities for Creating Shared Music Channels**
Amélie Anglade, Marco Tiemann, Fabio Vignoli
Long paper
- **MusicSun: A New Approach to Artist Recommendation**
Elias Pampalk, Masataka Goto
Short paper

Mon 15:30-16:30 (second floor): Poster Session 1



- 1 **Evaluation of Distance Measures Between Gaussian Mixture Models of MFCCs**
Jesper Højvang Jensen, Daniel P. W. Ellis, Mads G. Christensen, Søren Holdt Jensen
- 2 **An Analysis of the Mongeau-Sankoff Algorithm for Music Information Retrieval**
Carlos Gómez, Soraya Abad-Mota, Edna Ruckhaus
- 3 **Towards Musicdiff: A Foundation for Improved Optical Music Recognition Using Multiple Recognizers**
Ian Knopke, Donald Byrd
- 4 **Ensemble Learning for Hybrid Music Recommendation**
Marco Tiemann, Steffen Pauws, Fabio Vignoli
- 5 **Sociology and Music Recommendation Systems**
Daniel McEnnis, Sally Jo Cunningham

- 6 **Indexing Music Collections Through Graph Spectra**
Alberto Pinto, Reinier H. van Leuken, M. Fatih Demirci,
Frans Wiering, Remco C. Veltkamp
- 7 **A Demonstration of the SyncPlayer System**
Christian Fremerey, Frank Kurth, Meinard Müller,
Michael Clausen
- 8 **Assessment of Perceptual Music Similarity**
Alberto Novello, Martin McKinney
- 9 **Monaural Source Separation from Musical Mixtures
Based on Time-Frequency Timbre Models**
Juan José Burred, Thomas Sikora
- 10 **Performance of Philips Audio Fingerprinting under
Desynchronisation**
Neil J. Hurley, Félix Balado, Elizabeth P. McCarthy,
Guénolé C. M. Silvestre
- 11 **Using 3D Visualizations to Explore and Discover
Music**
Paul Lamere, Douglas Eck
- 12 **Globe of Music - Music Library Visualization Using
Geosom**
Stefan Leitich, Martin Topf
- 13 **Music Browsing Using a Tabletop Display**
Stephen Hitchner, Jennifer Murdoch, George Tzanetakis
- 14 **Strike-A-Tune: Fuzzy Music Navigation Using a
Drum Interface**
Adam R. Tindale, David Sprague, George Tzanetakis
- 15 **Search&Select -- Intuitively Retrieving Music from
Large Collections**
Peter Knees
- 16 **Alternative Digitization Approach for Stereo
Phonograph Records Using Optical Audio
Reconstruction**
Beinan Li, Simon de Leon, Ichiro Fujinaga

- 17 **Web-Based Detection of Music Band Members and Line-Up**
Markus Schedl, Gerhard Widmer, Tim Pohle, Klaus Seyerlehner
- 18 **Tool Play Live: Dealing with Ambiguity in Artist Similarity Mining from the Web**
Gijs Geleijnse, Jan Korst
- 19 **MIR in Matlab (II): A Toolbox for Musical Feature Extraction from Audio**
Olivier Lartillot, Petri Toivainen
- 20 **Keyword Generation for Lyrics**
Bin Wei, Chengliang Zhang, Mitsunori Ogihara
- 21 **Music Recommendation Mapping and Interface Based on Structural Network Entropy**
Justin Donaldson, Ian Knopke
- 22 **Influence of Tempo and Subjective Rating of Music in Step Frequency of Running**
Teemu Ahmaniemi
- 23 **Meaningfully Browsing Music Services**
Tim Pohle, Peter Knees, Markus Schedl, Gerhard Widmer
- 24 **jWebMiner: A Web-Based Feature Extractor**
Cory McKay, Ichiro Fujinaga
- 25 **Enabling Access to Sound Archives Through Integration, Enrichment and Retrieval: The EASAIER Project**
Christian Landone, Joseph Harrop, Josh Reiss
- 26 **Metadata Infrastructure for Sound Recordings**
Catherine Lai, Ichiro Fujinaga, David Descheneau, Michael Frishkopf, Jenn Riley, Joseph Hafner, Brian McMillan
- 27 **Musical Memory of the World -- Data Infrastructure in Ethnomusicological Archives**
Polina Proutskova

- 28 **A Digital Collection of Brazilian Lundus**
Rosana S. G. Lanzelotte, Adriana O. Ballesté, Martha Ulhoa
- 29 **Audio Identification Using Sinusoidal Modeling and Application to Jingle Detection**
Michaël Betser, Patrice Collen, Jean-Bernard Rault
- 30 **Audio Fingerprint Identification by Approximate String Matching**
Jerome Lebosse, Luc Brun
- 31 **Robust Music Identification, Detection, and Analysis**
Mehryar Mohri, Pedro Moreno, Eugene Weinstein
- 32 **Desoloing Monaural Audio Using Mixture Models**
Yushen Han, Christopher Raphael

**Mon 16:30-18:00 (Room HS 1):
Session 4 - Tonality
(Session Chair: Özgür İzmirlı)**

- **Visualizing Music: Tonal Progressions and Distributions**
Arpi Mardirossian, Elaine Chew
Long paper
- **Localized Key Finding from Audio Using Nonnegative Matrix Factorization for Segmentation**
Özgür İzmirlı
Long paper
- **Pitch Spelling with Conditionally Independent Voices**
Gabi Teodoru, Christopher Raphael
Long paper
- **A Symmetry Based Approach for Musical Tonality Analysis**
G. Gatzsche, M. Mehnert, D. Gatzsche, K. Brandenburg
Short paper

TUESDAY, SEPTEMBER 25, 2007

**Tue 9:00-10:15 (Room HS 1):
Session 5 – Keynote Speech
(Session Chair: David Bainbridge)**

- **Michael Carroll, Villanova University:**

**Research and the Law: Copyright Complications
and the Creative Commons Solution**

**Tue 10:45-12:20 (Room HS 6):
Parallel Session 6A - Instruments
(Session Chair: Ichiro Fujinaga)**

- **Polyphonic Instrument Recognition
Using Spectral Clustering**
Luis Gustavo Martins, Juan José Burred, George
Tzanetakis, Mathieu Lagrange
Long paper
- **Supervised and Unsupervised Sequence
Modelling for Drum Transcription**
Olivier Gillet, Gaël Richard
Long paper
- **Combining Temporal and Spectral Features
in HMM-Based Drum Transcription**
Jouni Paulus, Anssi Klapuri
Short paper
- **Improving the Classification of Percussive Sounds
with Analytical Features: A Case Study**
Pierre Roy, François Pachet, Sergio Krakowski
Short paper
- **Automatic Instrument Recognition in a Polyphonic
Mixture Using Sparse Representations**
Pierre Leveau, David Sotoy, Laurent Daudet
Short paper

**Tue 10:45-12:05 (Room HS 1):
Parallel Session 6B - Chords
(Session Chair: Elaine Chew)**

- **Audio-Based Cover Song Retrieval Using Approximate Chord Sequences: Testing Shifts, Gaps, Swaps and Beats**

Juan Pablo Bello
Long paper

- **A Unified System for Chord Transcription and Key Extraction Using Hidden Markov Models**

Kyogu Lee, Malcolm Slaney
Long paper

- **A Cross-Validated Study of Modelling Strategies for Automatic Chord Recognition in Audio**

John Ashley Burgoyne, Laurent Pugin, Corey Kereliuk, Ichiro Fujinaga
Short paper

- **Discovering Chord Idioms Through Beatles and Real Book Songs**

Matthias Mauch, Simon Dixon, Christopher Harte, Michael Casey, Benjamin Fields
Short paper

**Tue 14:00-15:30 (Room HS 1):
Session 7 - Alignment and Segmentation
(Session Chair: Roger Dannenberg)**

- **Automated Synchronization of Scanned Sheet Music with Audio Recordings**

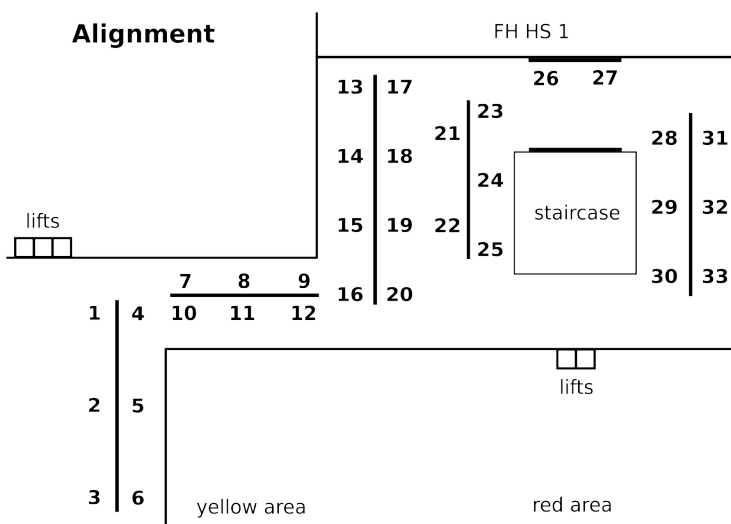
Frank Kurth, Meinard Müller, Christian Fremerey, Yoonha Chang, Michael Clausen
Long paper

- **A Probabilistic Framework for Matching Music Representations**

Paul Peeling, A. Taylan Cemgil, Simon Godsill
Long paper

- **A Methodology for the Segmentation and Identification of Music Works**
Riccardo Miotto, Nicola Orio
Long paper
- **Polyphonic Music Note Onset Detection Using Semi-Supervised Learning**
Wei You, Roger B. Dannenberg
Short paper

Tue 15:30-16:30 (second floor): Poster Session 2



- 1 **Classifying Music Audio with Timbral and Chroma Features**
Daniel P. W. Ellis
- 2 **Autotagging Music Using Supervised Machine Learning**
Douglas Eck, Thierry Bertin-Mahieux, Paul Lamere
- 3 **Phoneme Recognition in Popular Music**
Matthias Grühne, Christian Dittmar, Konstantin Schmidt

- 4 **Preliminary Analyses of Information Features Provided by Users for Identifying Music**
Jin Ha Lee, J. Stephen Downie, M. Cameron Jones
- 5 **A Closer Look on Artist Filters for Musical Genre Classification**
Arthur Flexer
- 6 **Singer Identification in Polyphonic Music Using Vocal Separation and Pattern Recognition Methods**
Annamaria Mesaros, Tuomas Virtanen, Anssi Klapuri
- 7 **An Experiment on the Role of Pitch Intervals in Melodic Segmentation**
Tillman Weyde, Jens Wissmann, Kerstin Neubarth
- 8 **Singing Melody Extraction in Polyphonic Music by Harmonic Tracking**
Chuan Cao, Ming Li, Jian Liu, Yonghong Yan
- 9 **Tuning Frequency Estimation Using Circular Statistics**
Karin Dressler, Sebastian Streich
- 10 **Towards Query by Singing / Humming on Audio Databases**
Alexander Duda, Andreas Nürnberger, Sebastian Stober
- 11 **A Query by Humming System that Learns from Experience**
David Little, David Raffensperger, Bryan Pardo
- 12 **Pedagogical Transcription for Multimodal Sitar Performance**
Ajay Kapur, Graham Percival, Mathieu Lagrange, George Tzanetakis
- 13 **Drum Transcription in Polyphonic Music Using Non-Negative Matrix Factorisation**
Arnaud Moreau, Arthur Flexer
- 14 **ATTA: Implementing GTTM on a Computer**
Masatoshi Hamanaka, Keiji Hirata, Satoshi Tojo
- 15 **A Simple Algorithm for Automatic Generation of Polyphonic Piano Fingerings**
Alia Al Kasimi, Eric Nichols, Christopher Raphael

- 16 **A Stochastic Representation of the Dynamics of Sung Melody**
Yasunori Ohishi, Masataka Goto, Katunobu Itou, Kazuya Takeda
- 17 **Applying Rhythmic Similarity Based on Inner Metric Analysis to Folksong Research**
Anja Volk, Jörg Garbers, Peter van Kranenburg, Frans Wiering, Remco C. Veltkamp, Louis P. Grijp
- 18 **A Dynamic Programming Approach to the Extraction of Phrase Boundaries from Tempo Variations in Expressive Performances**
Ching-Hua Chuan, Elaine Chew
- 19 **A Qualitative Assessment of Measures for the Evaluation of a Cover Song Identification System**
Joan Serrà
- 20 **Finding Music in Scholarly Sets and Series: The Index to Printed Music (IPM)**
Elizabeth Davis
- 21 **Music Retrieval by Rhythmic Similarity Applied on Greek and African Traditional Music**
Iasonas Antonopoulos, Aggelos Pikrakis, Sergios Theodoridis, Olmo Cornelis, Dirk Moelants, Marc Leman
- 22 **An Application of Empirical Mode Decomposition on Tempo Induction from Music Recordings**
Aggelos Pikrakis, Sergios Theodoridis
- 23 **Visualizing Music on the Metrical Circle**
Klaus Frieler
- 24 **Evaluating a Chord-Labeling Algorithm**
Daniel Müllensiefen, David Lewis, Christophe Rhodes, Geraint A. Wiggins
- 25 **Assessment of State-of-the-Art Meter Analysis Systems with an Extended Meter Description Model**
Matthias Varewyck, Jean-Pierre Martens

- 26 **TagATune: A Game for Music and Sound Annotation**
Edith L. M. Law, Luis von Ahn, Roger B. Dannenberg,
Mike Crawford
- 27 **A Web-Based Game for Collecting Music Metadata**
Michael I. Mandel, Daniel P. W. Ellis
- 28 **Evaluation of Real-Time Audio-to-Score Alignment**
Arshia Cont, Diemo Schwarz, Norbert Schnell,
Christopher Raphael
- 29 **The Music Information Retrieval Evaluation Exchange "Do-It-Yourself" Web Service**
Andreas F. Ehmman, J. Stephen Downie, M. Cameron
Jones
- 30 **Creating a Simplified Music Mood Classification Ground-Truth Set**
Xiao Hu, Mert Bay, J. Stephen Downie
- 31 **Vivo - Visualizing Harmonic Progressions and Voice-Leading in PWGL**
Mika Kuuskankare, Mikael Laurson
- 32 **Mood-ex-Machina: Towards Automation of Moody Tunes**
Sten Govaerts, Nik Corthaut, Erik Duval
- 33 **A Demonstrator for Automatic Music Mood Estimation**
Janto Skowronek, Martin McKinney, Steven van de Par

**Tue 16:30-18:00 (Room HS 1):
Session 8 -
Transcription and Multipitch Estimation
(Session Chair: Anssi Klapuri)**

- **Multipitch Analysis with Harmonic Nonnegative Matrix Approximation**
Stanislaw A. Raczynski, Nobutaka Ono, Shigeki Sagayama
Long paper
- **Automatic Transcription of Music Audio Through Continuous Parameter Tracking**
Eric Nichols, Christopher Raphael
Long paper
- **Synthesized Polyphonic Music Database with Verifiable Ground Truth for Multiple F0 Estimation**
Chunghsin Yeh, Niels Bogaards, Axel Roebel
Long paper
- **High Time-Resolution Estimation of Multiple Fundamental Frequencies**
Jayme Garcia Arnal Barbedo, Amauri Lopes, Patrick J. Wolfe
Short paper

WEDNESDAY, SEPTEMBER 26, 2007

Wed 9:00-10:15 (Room HS 1): Session 9 - Semantics and Ontologies (Session Chair: Don Byrd)

- **Identifying Words that are Musically Meaningful**
David Torres, Douglas Turnbull, Luke Barrington, Gert Lanckriet
Long paper
- **A Semantic Space for Music
Derived from Social Tags**
Mark Levy, Mark Sandler
Long paper
- **The Music Ontology**
Yves Raimond, Samer Abdallah, Mark Sandler, Frederick Giasson
Long paper

Wed 10:45-12:20 (Room HS 6): Parallel Session 10A - Classification (Session Chair: Fabien Gouyon)

- **Signal + Context = Better Classification**
Jean-Julien Aucouturier, François Pachet, Pierre Roy, Anthony Beurivé
Long paper
- **Raag Recognition Using Pitch-Class
and Pitch-Class Dyad Distributions**
Parag Chordia, Alex Rae
Long paper
- **Towards a Human-Friendly Melody
Characterization by Automatically Induced Rules**
Pedro J. Ponce de León, David Rizo, José M. Iñesta
Short paper

- **Stereo Panning Features for Classifying Recording Production Style**
George Tzanetakis, Randy Jones, Kirk McNally
Short paper
- **VISA: The Voice Integration/Segregation Algorithm**
Ioannis Karydis, Alexandros Nanopoulos, Apostolos N. Papadopoulos, Emilios Cambouropoulos
Short paper

**Wed 10:45-12:05 (Room HS 1):
Parallel Session 10B -
Content-Based Retrieval
(Session Chair: Masataka Goto)**

- **Using Pitch Stability Among a Group of Aligned Query Melodies to Retrieve Unidentified Variant Melodies**
Jörg Garbers, Peter van Kranenburg, Anja Volk, Frans Wiering, Remco C. Veltkamp, Louis P. Grijp
Long paper
- **Algorithms for Polyphonic Music Retrieval: The Hausdorff Metric and Geometric Hashing**
Christian André Romming, Eleanor Selfridge-Field
Long paper
- **Content-Based Music Retrieval Using Query Integration for Users with Diverse Preferences**
Keiichiro Hoashi, Hiromi Ishizaki, Kazunori Matsumoto, Fumiaki Sugaya
Short paper
- **A Music Information Retrieval System Based on Singing Voice Timbre**
Hiromasa Fujihara, Masataka Goto
Short paper

**Wed 14:00-15:30 (Room HS 1):
Session 11 – PANEL - MIREX 2007
(Session Chair: Stephen Downie)**

**Wed 15:30-16:30 (second floor):
Poster Session 3 – MIREX Posters**

**Wed 16:30-18:00 (Room HS 1):
Session 12 - Similarity 2
(Session Chair: Kjell Lemström)**

- **Methodological Considerations
in Studies of Musical Similarity**
Hamish Allan, Daniel Müllensiefen, Geraint A. Wiggins
Long paper
- **Similarity Based on Rating Data**
Malcolm Slaney, William White
Long paper
- **A Study on Attribute-Based Taxonomy
for Music Information Retrieval**
Jeremy Reed, Chin-Hui Lee
Long paper
- **Variable-Size Gaussian Mixture Models
for Music Similarity Measures**
Wietse Balkema
Short paper

THURSDAY, SEPTEMBER 27, 2007

**Thu 9:00-10:15 (Room HS 1):
Session 13 -
Performance, User Access and OMR
(Session Chair: Connie Mayer)**

- **Comparative Analysis of Multiple Musical Performances**
Craig Stuart Sapp
Short paper
- **The Probado Music Repository at the Bavarian State Library**
Jürgen Diet, Frank Kurth
Short paper
- **Towards Integration of MIR and Folk Song Research**
Peter van Kranenburg, Jörg Garbers, Anja Volk, Frans Wiering, Louis P. Grijp, Remco C. Veltkamp
Short paper
- **A Comparative Survey of Image Binarisation Algorithms for Optical Recognition on Degraded Musical Sources**
John Ashley Burgoyne, Laurent Pugin, Greg Eustace, Ichiro Fujinaga
Short paper
- **MAP Adaptation to Improve Optical Music Recognition of Early Music Documents Using Hidden Markov Models**
Laurent Pugin, John Ashley Burgoyne, Ichiro Fujinaga
Short paper

**Thu 10:45-12:20 (Room HS 1):
Session 14 - Annotation and Evaluation
(Session Chairs: Youngmoo Kim, Dan Ellis, Juan Bello)**

- **From Rhythm Patterns to Perceived Tempo**
Klaus Seyerlehner, Gerhard Widmer, Dominik Schnitzer
Long paper
- **The Quest for Ground Truth in Musical Artist Tagging in the Social Web Era**
Gijs Geleijnse, Markus Schedl, Peter Knees
Long paper
- **Annotating Music Collections: How Content-Based Similarity Helps to Propagate Labels**
Mohamed Sordo, Cyril Laurier, Oscar Celma
Short paper
- **A Game-Based Approach for Collecting Semantic Annotations of Music**
Douglas Turnbull, Ruoran Liu, Luke Barrington, Gert Lanckriet
Short paper
- **Human Similarity Judgments: Implications for the Design of Formal Evaluations**
M. Cameron Jones, J. Stephen Downie, Andreas F. Ehmann
Short paper

**Thu 12:20-12:30 (Room HS 1):
Closing Session**

SOCIAL EVENTS

▪ ICE BREAKING PARTY

Sunday, September 23

Beginning: 18:15

Conference Venue – Freihaus building, 1st floor

The kick-off for the conference's social programme is the Ice Breaking Event on Sunday at the conference venue. It will start at 6:15 p.m. right after the tutorials. This event is the perfect opportunity for getting to know each other in an informal atmosphere while tasting a selection of great Austrian red and white wines.

▪ RECEPTION

Monday, September 24

Beginning: 19:00

Neue Burg

The official ISMIR 2007 reception will be on Monday, 24th September, 7:00-10:30 p.m. It takes place at the **Neue Burg** in the magnificent Jagdplateau hall, and will be accompanied by a buffet.

As a special offer to ISMIR participants, admission to the **Collection of Ancient Musical Instruments** will be free. This collection comprises many instruments played by famous musicians and composers, and it is the most important of its kind in the world.



Reception Venue: Neue Burg

Heldenplatz, 1010 Wien



▪ CONFERENCE DINNER

Tuesday, September 25

Beginning: 19:30

Vienna City Hall, Coat of Arms Hall (Rathaus, Wappensaal)

The Conference dinner will be on Tuesday at 7:30 p.m. After an impressive walk along Vienna's Ringstraßen boulevard passing by many of Vienna's attractions, you will take a tasty dinner in the Coat of Arms Halls (Wappensaal) of the Vienna City Hall (Rathaus).

Student Volunteers will take you on a walk along the Ringstraße, Emperor Franz Josef's circular boulevard surrounding the inner city of Vienna. Crossing Karlsplatz, the tour starts at the Opera House and passes along many of Vienna's main attractions: the Hofburg Palace (the president's residence), the Burg garden, Kunsthistorisches Museum (Museum of Fine Arts), Naturhistorisches Museum (Museum of Natural History), the Parliament and the Burgtheater, finally traversing the Rathauspark, the garden of Vienna's City Hall.

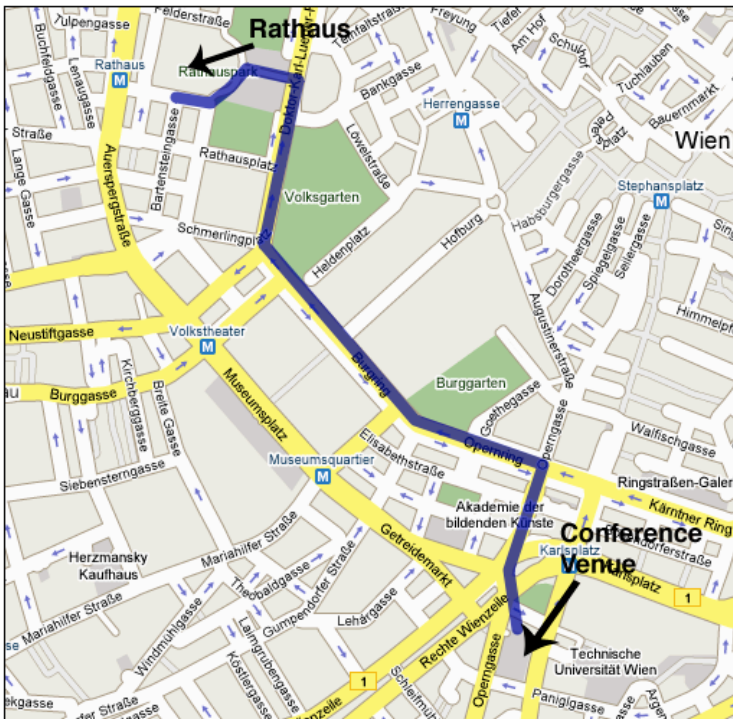
If you prefer faster transfer, you can take tram line 1 or D at the Opera and go to Burgtheater, which is facing the City Hall.



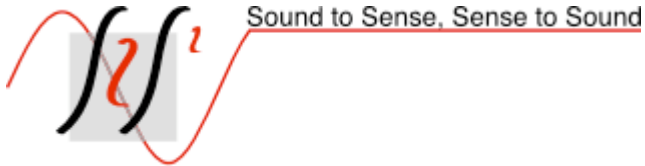
Conference Dinner: City Hall (Rathaus)

NOTE:

The delegate entrance to City Hall is on the left side of the building (Lichtenfelsgasse).



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