The Jazzomat Research Project is situated at the intersection of jazz research, cognitive psychology of creativity, and statistical music analysis. One central aim is to describe and discriminate stylistic features of jazz improvisation by examining jazz solos of various artists and styles with the help of a large computer database and newly developed software tools. Moreover, we want to explore the cognitive foundations of improvisation, test theories about the cognition of creative processes, and evaluate and enhance pedagogical approaches towards jazz improvisation. Furthermore, the project generally aims at advancing statistical and computational methods of music analysis in various areas of music information retrieval.

The Jazzomat Research Project is funded by the German Research Foundation with a three-year grant (October 2012 – September 2015). After the first two years of project runtime, the research workshop aims at presenting, sharing and discussing results of the project and at getting further theoretical and methodological input from international researchers with various areas of expertise. These include style analysis of jazz improvisation as well as jazz theory and jazz pedagogy (session 1), psychology of creative processes as well as computer-aided analysis of recurring melodic and rhythmic patterns (session 2), and music information retrieval, esp. the interaction of audio-based and symbolic music data analysis (session 3). Additionally, during an evening roundtable jazz musicians and jazz educators will discuss implications of computational jazz research for jazz education.

The WeimarJazzDatabase currently (July 2014) encompasses more than 200 monophonic jazz improvisations by various artists and genres; they are transcribed and annotated in a MIDI-like format by project assistants.

MeloSpySuite is a free, stand-alone software toolkit with various tools for analysis of monophonic melodies, particularly jazz improvisations. It has been developed within the project and includes feature extraction (melfeature), pattern mining (melpat), and data conversion (melconv) tools along with detailed documentation and introductory tutorials.

Free download: jazzomat.hfm-weimar.de/download/

September 26th-27th, 2014
hochschulzentrum am horn
The LISZT SCHOOL of Music Weimar

Hosted by
 The LISZT SCHOOL of Music Weimar
  Department of musicology Weimar-Jena

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 Funded by the German
 Research Foundation

INTERNATIONAL RESEARCH WORKSHOP

The Jazzomat Project

ISSUES, APPLICATIONS & PERSPECTIVES FOR COMPUTATIONAL METHODS IN MUSIC RESEARCH

Weimar Jazz Database

MeloSpySuite

Free entrance,
please register via e-mail:
jazzomat@hfm-weimar.de

For further information:
jazzomat.hfm-weimar.de/workshop2014

Jazzomat

Friday 26th September

09:30 **Welcome & Introduction:**
The Jazzomat Research Project

JAZZ RESEARCH – STYLE ANALYSIS – JAZZ THEORY

09:45 **Martin Pfleiderer**, Weimar
MeloSpyin' the Trane. Exploring
Improvisations of John Coltrane with
MeloSpySuite

10:30 **Martin Schütz**, Hamburg
Structural Aspects of Jazz Improvisation.
A New Approach Based on Mid-Level-
Analysis

Coffee Break

11:30 **Andreas Kissenbeck**, München
Model Analysis. A Theoretical Approach to
Analysing and Creating Melodic Material

12:15 **Michael Kahr**, Graz
Towards the Analysis of Linear Aspects in
Tonal Jazz Harmony

Lunch Break

CREATIVE PROCESSES – PATTERN MINING

14:00 **Klaus Frieler**, Weimar
Pattern Usage in Monophonic Jazz Solos

14:45 **Olivier Lartillot**, Aalborg
Computer-Automated Motivic Analysis of the
Weimar Jazz Database Through Exhaustive
Pattern Mining

Coffee Break

15:45 **Berit Janssen**, Amsterdam
A Comparison of Similarity Metrics for
Musical Pattern Matching

16:30 **Daniel Müllensiefen, Klaus Frieler,
Kelly Jakubowski**, London and Weimar
Is it the Song and Not the Singer? Hit Song
Science Using Structural Features of Melodies

Kasseturm Weimar, Goetheplatz 10

19:00 **PANEL DISCUSSION (IN GERMAN):**

Entfernte Cousinen oder Blutsbrüder?
Schnittstellen zwischen Jazzforschung
und Jazzpädagogik

**Wolfgang Bleibel, Christian Dittmar,
Michael Kahr, Andreas Kissenbeck,
Jo Thönes, Wolf-Georg Zaddach**

21:00 **JAZZ CONCERT AND JAM SESSION**
with *X & The Gang feat. Nils Feldmann*

Saturday 27th September

MUSIC INFORMATION RETRIEVAL – PERSPECTIVES FOR AUDIO ANALYSIS

09.45 **François Pachet**, Paris
Imitating Jazz Styles for Composition,
Harmonization and Accompaniment.
The FlowMachines Project

10.30 **Meinard Müller**, Erlangen
Cross-Domain Music Retrieval

Coffee Break

11.30 **Jakob Abeßer**, Weimar / Ilmenau
Score-Informed Estimation of Vibrato,
Bends, Slides, and Fall-Offs in Trumpet
and Saxophone Jazz Solos

12.15 **Christian Dittmar**, Erlangen
Estimating Swing Ratios and Soloist
Micro-Timing from Jazz Recordings with
Aligned Beat Grids

13:00 **FINAL DISCUSSION:**
Perspectives for Computational
Methods in Music Research

The Workshop takes place at
hochschulzentrum am horn, Carl-
Alexander-Platz 1, seminar room 1,
except for the panel discussion
and concert on Friday night at
Kasseturm.