

<b>Module title</b>		<b>Abbreviation</b>
Music Information Retrieval		10-I=MIR-232-m01
<b>Module coordinator</b>		<b>Module offered by</b>
Dean of Studies Informatik (Computer Science)		Institute of Computer Science
<b>ECTS</b>	<b>Method of grading</b>	<b>Only after succ. compl. of module(s)</b>
5	numerical grade	--
<b>Duration</b>	<b>Module level</b>	<b>Other prerequisites</b>
1 semester	graduate	--
<b>Contents</b>		
<p>This lecture introduces the research field of Music Information Retrieval (MIR), focussing on the following topics: Music representations (graphical, symbolic, audio), basic music theory concepts, audio signal processing (esp. time-frequency transformations, variants of the Fourier transform), selected machine learning techniques, overview and in-depth study of individual MIR tasks (e.g., harmony analysis/chord recognition, beat tracking/tempo, structure analysis, genre/style classification), data preparation/annotation and corpus analysis for digital humanities/musicology</p>		
<b>Intended learning outcomes</b>		
<p>The students have a fundamental understanding of music representations and audio data as well as theoretical and practical knowledge in the field of audio signal processing and specialized machine learning techniques. They have gained experience with typical MIR tasks and are able to understand, develop, and apply MIR algorithms.</p>		
<b>Courses</b> (type, number of weekly contact hours, language — if other than German)		
V (2) + Ü (2) Module taught in: German and/or English		
<b>Method of assessment</b> (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)		
<p>a) written examination (approx. 60 to 120 minutes) or  b) oral examination of one candidate each (approx. 20 minutes) or  c) oral examination in groups of up to 3 candidates (approx. 15 minutes)  Language of assessment: German and/or English  Creditable for bonus</p>		
<b>Allocation of places</b>		
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<b>Additional information</b>		
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<b>Workload</b>		
150 h		
<b>Teaching cycle</b>		
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<b>Referred to in LPO I</b> (examination regulations for teaching-degree programmes)		
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<b>Module appears in</b>		
<p>Master's degree (1 major) Computer Science (2023)  Master's degree (1 major) Artificial Intelligence (2024)  Master's degree (1 major) Computational Mathematics (2024)  Master's degree (1 major) Mathematics (2024)</p>		