INVITATION TO THE LECTURE SERIES ARTIFICIAL INTELLIGENCE

Time: **Tuesday October 22, 2019, 14:00 h**
Place: **Lecture Hall 1 (HS 1)**

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Can Computers "Understand" Music?
An Update from the World of AI Research

Much of current research in Artificial Intelligence and Music, and particularly in the field of Music Information Retrieval (MIR),´focuses on algorithms that interpret musical signals and recognize musically relevant objects and patterns at various levels – from notes to beats and rhythm, to melodic and harmonic patterns and higher-level segment structure –, with the goal of supporting novel applications in the digital music world. This presentation will give the audience a glimpse of what musically "intelligent" systems can currently do with music, and what this is good for. However, we will also find that while some of these capabilities are quite impressive, they are still far from (and do not require) a deeper "understanding" of music. An ongoing project will be presented that aims to take AI & music research a bit closer to the "essence" of music, going beyond surface features and focusing on the *expressive* aspects of music, and how these are communicated in music. This raises a number of new research challenges for the field of AI and Music (discussed in much more detail in [1]). As a first step, we will look at recent work on computational models of expressive music performance, and will show some examples of the state of the art (including the result of a recent musical 'Turing test').

[1] Widmer, G. (2016), Getting Closer to the Essence of Music: The Con Espressione Manifesto. ACM Transactions on Intelligent Systems and Technology 8(2), Article 19. https://arxiv.org/pdf/1611.09733.pdf

Host: Dr. Johannes Kofler
Institute for Machine Learning

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