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A Dynamical Systems Approach to Spectral Music: Modeling the Role of Roughness and Inharmonicity in Perception of Musical Tension

Tension-resolution patterns seem to play a dominant role in shaping our emotional experience of music. Whereas in traditional Western music, these patterns are mainly expressed through harmony and melody, many contemporary musical compositions (e.g. so-called “spectral music”) employ sound materials lacking any perceivable pitch structure, rendering these two compositional devices useless. Motivated by recent advances in music-theoretical and neuroscientific research into the related phenomenon of dissonance, we propose a neurodynamical model of musical tension based on a spectral representation of sound and hence applicable to any kind of sound material, pitched or non-pitched.

The Seminar will take place online via Zoom as part of the Oberseminar “Nonlinear Dynamics” organized by Bernold Fiedler (FU Berlin), Isabelle Schneider (FU Berlin), Eckehard Schöll (TU Berlin) and Matthias Wolfrum (WIAS).

For information on how to access the event, please contact any of the above or:
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