

Bachelor / Master / Diplomatheses

are available within by Klaus Tschira Foundation supported project

Multicriteria Optimization of Automatic Music Classification based on High Level Features with Methods of Computational Intelligence

The concrete topics can be defined with regard to personal background and may cover different areas of Music Information Retrieval, in particular:

- Comparison and analysis of different existing MIR methods
- Algorithms for extraction of signal-based features
- Algorithms for extraction of high level features (instruments, melody, harmony, tempo, rhythm etc.)
- Definition and application of different classification tasks (music genres, tags, personal categories, emotions etc.)
- Optimization of methods (according to runtime / quality metrics) for music classification, in particular with Evolutionary Algorithms
- Multicriteria evaluation of music classification

Since the project is held together with the Chair of Computational Statistics, a possibility for intensive exchange of experience in an interdisciplinary team is given.

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