Special Issue

Applications of Machine Learning in Audio Classification and Acoustic Scene Characterization

Message from the Guest Editor

Most of the “audio classification” (AC) and “acoustic scene characterization” (ASC) systems developed so far are limited to the identification of monaurally recorded audio sources or events, overlooking the importance of their spatial characteristics. Therefore, we are interested in research papers that include but are not limited to the following topics:

- Spatial audio scene characterization;
- Localization of sound sources within complex audio scenes;
- Automatic indexing, search or retrieval of spatial audio recordings;
- Acoustic scene characterization in music information retrieval;
- Data-efficient augmentation for deep learning-based audio classification algorithms;
- Intelligent audio surveillance systems;
- Detection of anomalous or emergency-related sounds;
- Acoustically-based systems for early detection and fault prevention in industrial settings.

Keywords: audio classification; acoustic scene characterization; spatial audio; machine learning; deep learning

Guest Editor

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As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal *Applied Sciences* has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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