

Abstract M. Sc. Lukas Drude

Integration of neural networks and probabilistic models for acoustic blind source separation

Abstract:

Current trends and the astonishing performance of neural networks can hardly be neglected. Besides their long lasting success in speech recognition many deep learning solutions for speech enhancement and more recently also for speech separation are available. However, when a geometrical or physical interpretation of a signal is possible statistical models tend to be more interpretable and yield reasonably good solutions in many cases. This presentation demonstrates how neural networks and probabilistic models can be integrated or profit from each other for the specific example of multi channel acoustic blind source separation.