3.10 Large Scale Speaker Identification

**Functional description**

Idiap’s speaker identification technology focuses on datasets with large speaker populations. It exploits several complementary technologies (iVectors, Subspace GMMs) to generate low-dimensional but representative speaker models, followed by channel compensation technique.

Our environment simulator provides massive resources for the development of speaker identification systems that are more robust to acoustic mismatch.

**Innovative aspects**

- Combining state-of-the-art speech and speaker recognition technologies
- Simulation of a large variety of acoustic environments for improved robustness
- The technology is language-, text- and channel-independent
- Possibility to detect phone exchange within the same speaker
- New speaker can be easily added by end-users
- The technology supports all speaker identification alternatives: 1:1, 1:N, N:M (group of speakers against group of speaker models)

**Commercial application examples**

- Search and retrieval of speaker identities (in large audio archives)
- Speaker identification of multi-styled and noisy speech
- The technology can be easily combined with gender and language identification

**More information**


**Software & IPR status**

The above mentioned approaches to speaker identification are developed within the open-source Kaldi toolkit. The acoustic simulator is available as an open-source package from publicly available resources.