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Configuring the Kaldi ASR toolkit for the Lengau Cluster

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Kaldi] is an open source software project that was initiated by the Center for Language and Speech Processing, Johns Hopkins University. It is one of the leading toolkits used for research in automatic speech recognition (ASR). The toolkit employs current machine learning techniques such a deep neural networks and is capable of state-of-the-art performance. Kaldi can be configured for a single personal computer or a high performance computing (HPC) cluster using the Sun Grid Engine. Although configuring Kaldi for parallelisation on a cluster is well documented, it is assumed that the user has complete control. A researcher may have the option to set up an in-house cluster with the advantage of complete control, but maintaining the cluster can become a task that distracts from the research work. The size of an in-house cluster is also limited by the resources and funds available to the researcher. When the disadvantages outweigh the advantages, migrating to a larger, community-based cluster with on-site support becomes attractive. Because such clusters host users from various institutions and disciplines, usage policies and restrictions apply which were not applicable to the in-house cluster. These restrictions affect how Kaldi can be used.

[Full abstract added as a PDF attachment.]

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