

Assessment in the NIST Speaker Recognition Evaluation

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Abstract

The National Institute of Standards and Technology (NIST) Speaker Recognition Evaluations (SRE) are an ongoing series of projects conducted by NIST to contribute to the direction of research efforts and to the calibration of technical capabilities for all researchers working on the general problem of text independent speaker recognition. In the NIST SRE, the speaker detection performance results are measured and presented by means of detection error trade-off (DET) curves and detection cost functions. This talk discusses the general speaker recognition task from a risk management perspective, and introduces the estimation of the DET curves and cost functions as risk assessment problems. The sampling variability results in measurement uncertainties of the estimation of the DET curves and detection cost functions will be addressed. The choices of different detection cost functions are compared and contrasted. This talk concludes with discussions on some issues and challenges involved in the NIST SRE.

Keywords: Speaker recognition; NIST evaluation activity; DET curve; Measurement uncertainty.

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