

SUMMARY OF SESSION 10 – Continuous Speech Recognition II

George Doddington, chairman

Algorithms and techniques to improve the robustness of speech recognition were the principal theme in session 10.

The session opened with two papers which addressed the compensation for noise and microphone characteristics. Significant performance improvement was demonstrated. Michael Picheny made an important comment in response to these papers, namely that these techniques have been developed before. Why are they not incorporated as a standard part of speech preprocessing for all speech recognition systems?

Ostendorf presented work on the modeling of temporal correlation and discussed some interesting techniques. Although this work is in an early stage, the issues and ideas treated may be an area of great importance to progress in speech recognition. Although the work was contrasted as being distinct from HMM, the general ideas could and should be applied using HMM's as well.

The session concluded with a paper on the use of decision trees in speech recognition and one on the use of parallel algorithms for improved speech recognition.