

SS 2025

Lecture / Exercise

Automatic Speech Recognition Search

Type	Schedule / Room	Start	Lecturer
V2 Ü1	check RWTHonline	check RWTHonline	PD Dr. Ralf Schlüter Z. Yang
<p>Content</p> <ul style="list-style-type: none">• Introduction to ASR decision theory and modeling.• Large vocabulary speech recognition.• Lexical prefix tree search.• Across-word modeling.• Time-conditioned search.• Refined search approaches.• Search space representations and applications. <p>The lecture covers advanced aspects of automatic speech recognition decoding. Special emphasis is put on decoding/search beyond linear lexica, search based on advanced modelling, alternative search organization, advanced beam search and multi-pass approaches.</p> <p>Assignment: Applied Computer Science or Field of Specialization</p> <p>Requirements: Modul (Fundamentals of) Automatic Speech Recognition or comparable knowledge in the field of automatic speech recognition.</p> <p>References:</p> <ul style="list-style-type: none">• F. Jelinek: "Statistical Methods for Speech Recognition", MIT Press, Cambridge, MA, 1998.• D. Jurafsky, D. H. Martin: "Speech and Language Processing", Prentice Hall, Englewood Cliffs, NJ, 2000.• R. De Mori: "Spoken Dialogues with Computers", Academic Press, London, 1998.• Current publications on automatic speech recognition. <p>Others: The lecture will be given in English. For more information, please contact: Priv.-Doz. Dr. Ralf Schlüter Machine Learning and Human Language Technology (MLHLT) Group Lehrstuhl Informatik 6 E-Mail: schlueter@ml.rwth-aachen.de</p>			