

Large Vocabulary speech recognition (LVSR)

1. Questions

- 1.1. How „large“ is the vocabulary in LVSR?
- 1.2. For the vocabulary, lexicon, word list, phoneme list, pronunciation variants:
give definition, usage, typical entry in list.
- 1.3. Why are word models not suitable for LVSR?
- 1.4. Why does one use a Language Model (LM) in LVSR?
- 1.5. What is the score? How is the LM incorporated in the score?
- 1.6. What is LM recombination?

2. Lattices

- 2.1. What is a lattice? What is a dense lattice?
- 2.2. What is rescoring on a lattice? Why is it performed?
- 2.3. What „penalties“ are used in LVSR? Why?
- 2.4. What type of LMs are used for lattices which will later be used for rescoring?
- 2.5. How does a typical lattice structure / lattice line look like?
- 2.6. Compute (by hand) the score on a lattice which will be provided to you in the exercises.
What is the best hypothesis?

3. Computer experiments

- 3.1. Will be performed on LMs / scores / penalty terms/ lattices.
(To be assigned.)