Low development cost, high quality speech recognition for new languages and domains

"Cheap ASR"

Participants:

- "Senior members": Lukas Burget, Nagendra Kumar Goel, Daniel Povey, Richard Rose
- Graduate students: Arnab Ghoshal, Petr Schwarz, Samuel Thomas
- Undergraduates: Mohit Agarwal, Pinar Akyazi
- Special thanks to (in alphabetical order): Tony Feng, Mark Gales, Ondrej Glembek, Martin Karafiat, Tomas Kasparek, Patrick Nguyen, Ariya Rastrow, Shou-Chun Yin

What is this project about

- "Cheap ASR" is a unifying theme for two sub-projects:
    - "Subspace Gaussian Mixture Models" (SGMM), an acoustic modeling technique.
    - Automatic learning of lexicons, which is a topic that Nagendra and Samuel have been working on.
- Reason for theme:
    - SGMMs are more compact, so need less training data to train equally good models.
    - Automatic learning of lexicons means less need for human input.

Schedule for this afternoon

1.30 – 3:00	**Presentations**
3:00 – 3:15	**Break**
3:15 – 4:05	**Presentations**
4:05 – 4:30	**Questions and Discussion**

First block

1.35 – 1:50	**Rick Rose**	**Introduction to Subspace GMMs**
1:50 – 2:15	**Lukas Burget**	**More details on SGMMs**
2:15 – 2:35	**Petr Schwarz**	**Experimental setup with CallHome and main results**
2:35 – 2:40	**Mohit Agarwal**	**Clustering for SGMM initialization**
2:40 – 3:00	**Arnab Ghoshal**	**Adaptation with SGMM system**

Second block

3:15-3:25	Rick Rose	Experiments with Wall Street Journal
3:25-3:45	Nagendra Goel, Samuel Thomas, Pinar Akyazi	Lexicon learning
3:45-4:00	Daniel Povey	Technical overview of SGMM training/
4:00-4:05		Summary
4:05-4:30	Questions and Discussion	