E6820 Speech & Audio Processing & Recognition **Homework 10**

Assigned: Tuesday 2001-04-03 Due: Tuesday 2001-04-10

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Background reading:

Read chapter 28 in Gold & Morgan.

Practical assignment:

This week's practical was developed by Prof. Hervé Bourlard, my host in Switzerland, and his student Sacha Krstulovic. It gives you practical exposure to the behavior of some different hidden Markov models, as well as showing you how they can be used to classify sequences. The files for the practical are in http://www.ee.columbia.edu/~dpwe/e6820/matlab/epflhmm/

Start by reading the Lab Manual, which will take you through the exercises. It is more or less self-contained; it does refer back to an earlier lab concerned with Gaussian mixtures, but this is very similar to the material we covered earlier in the semester.

I am very grateful to Prof. Bourlard and Sacha for their permission to use this excellent practical. It would be nice to contribute to its development, so if you have any comments or suggestions for improvements please add them to your web page. Also add one of the graphs and a little explanation about something that caught your attention in the practical.

Projects:

This week's homework is deliberately brief to give you time to work on your projects. Ideally, you will already be getting some kind of results, to give you an opportunity to revise the processing you have developed to improve the performance in some sense.