



Steve Young

Information Engineering Division

On-line Learning of Wide-domain Spoken Dialogue Systems

The first part of the talk reviews the general structure of limited domain statistical SDS and then explains how a collection of limited domain systems can be merged using the framework of Bayesian Committee Machines. The problem of reward estimation in on-line learning is then introduced and a solution based on the joint estimation of Gaussian Process based reward prediction and dialogue policy is presented.

Steve Young is Professor of Information Engineering in the *Information Engineering Division*. His main research interests lie in the area of spoken language systems including speech recognition, speech synthesis and dialogue management. He was Editor of *Computer Speech and Language* from 1993 to 2004, and Chair of the *IEEE Speech and Language Processing Technical Committee* from 2009 to 2011. He now holds a joint appointment between *Cambridge University* and *Apple Computer* where he is a member of the *Siri Development Team*. Steve is a Fellow of the *Royal Academy of Engineering*, the *Institution of Engineering and Technology (IET)*, the *Institute of Electrical and Electronics Engineers (IEEE)* and the *RSA*. In 2004, he was a recipient of an *IEEE Signal Processing Society Technical Achievement Award*; in 2008 he was elected *Fellow of the International Speech Communication Association (ISCA)* ; in 2010, he received the *ISCA Medal for Scientific Achievement*; in 2013, he received the *European Signal Processing Society Individual Technical Achievement Award* ; and in 2015 he received the *IEEE James L Flanagan Speech and Audio Processing Award*.