



# “Speaking naturally? It depends who is listening”

(自然に喋るとは？それは誰が聞いているかによる)

## Professor Simon King

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日時: 2018年1月22日(月) (8:50~10:20am) (1~2限)

場所: 名古屋工業大学 4号館 2階 会議室 3

対象: 一般、大学生、教員

### Abstract:

Putting one technology against another can lead to intriguing developments. Using speech synthesis to 'spooft' speaker verification systems was initially found to be very successful, but immediately triggered the development of effective countermeasures. The next step in the arms race is synthetic speech that cannot be detected by those countermeasures. It doesn't even have to sound natural or like the target speaker to a human listener - only to the machine. Other forms of such an adversarial attack have been demonstrated against image classifiers (with images that look like one thing to a human but something entirely different to the machine) and automatic speech recognition systems (where signals that sound like noise to a human are recognised as words by the machine). This highlights the enormous differences between human and machine perception. Does that matter? Do generative models and adversarial techniques tell us anything about human speech, or is there no connection? I'm not promising any answers though; I'm likely to raise more questions.

This talk is an early version of a keynote address to be given at Speaker Odyssey 2018.

### About Speaker:

Simon King holds M.A. and M.Phil. degrees from Cambridge and a Ph.D. from the University of Edinburgh. He has been with the Centre for Speech Technology Research at the University of Edinburgh since 1993, where he is now Professor of Speech Processing and the director of the center. His interests include speech synthesis, recognition and signal processing and he has around 170 publications in these areas. He has served on the ISCA SynSIG board and co-organizes the Blizzard Challenge.

He previously served on the IEEE SLTC and as an associate editor of the IEEE Transactions on Audio, Speech and Language Processing, and is a current associate editor of Computer Speech and Language.

See also <http://frontier.web.nitech.ac.jp/en/archives/faculty/simon-king-ph-d>

本講演は博士前期・博士後期「特別演習」認定講義となりますので、出席の上、必要な条件を満たした場合は、以下の科目の認定要件に加算されます。

- ・材料・エネルギー特別演習1, 材料・エネルギー特別演習2
- ・情報・社会特別演習1, 情報・社会特別演習2
- ・材料・エネルギー先進特別演習1, 材料・エネルギー先進特別演習2
- ・情報・社会先進特別演習1, 情報・社会先進特別演習2