

The 2nd International Workshop on Machine Listening in Multisource Environments

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Workshop motivation

- Machine Listening researchers often identify themselves by **specific application domains**, for example,
 - ▶ speech recognition people,
 - ▶ music transcription and analysis people,
 - ▶ acoustic event detection people,
 - ▶ source separation people.
- This emphasises the differences between these domains instead of promoting shared solutions to **shared problems**.
- One particularly challenging problem is robustness in multisource environments.
- We hope this workshop can bring communities together.

What is a multisource environment?

- By multisource environment we intend the following conditions:
 - ▶ Environments containing **multiple sources** of sound.
 - ▶ The sound sources are typically **individually localised** in space.
 - ▶ The activity level of the sources is changing over time.
 - ▶ The sound sources may be **static or moving**.
 - ▶ There may be some **prior expectations**, but many critical parameters are unknown (e.g. number of sources).
- **These conditions are normal** in everyday listening environments – and yet they are often treated as a special case.
- Multisource conditions lead to challenging tasks, e.g.,
 - ▶ **Recognising** distant microphone speech in everyday settings.
 - ▶ **Transcribing** a string quartet from a live recording.
 - ▶ **Detecting** a specific bird call in a woodland recording.
 - ▶ **Enhancing** a target speaker while suppressing multisource noise background.

Workshop programme

- 9:00 Welcome
- 9:10 [Keynote 1](#): Steven J. Rennie (IBM T.J. Watson Research Center)
- 10:00 Break
- 10:20 [Overview of the 2nd CHiME Challenge](#)
- 10:50 [Oral session 1: challenge papers](#)
- 12:10 Lunch
- 13:40 [Poster session](#)
- 15:40 Break
- 16:00 [Oral session 2: challenge-related paper](#)
- 16:20 [Keynote 2](#): Daniel P.W. Ellis (Columbia University)
- 17:10 [Plenary discussion](#)
- 17:50 Closing

Notes for presenters

Slides

Please upload your slides onto the computer during the morning break.

Timing

Talks should be 15 minutes with 5 minutes for questions and handover.

Posters

Please hang your poster during the morning break.

Plenary discussion

Feedback is essential for the sustainability of CHiME, e.g.:

- What went right or wrong?
- Why so few non-challenge papers?
- Why few participants in Track 2?
- How to improve the instructions and the tools?
- How to improve the reproducibility of the results?
- How to gain more outcomes?
- Which data and task come next? Who is interested in organising?

Think about it. Discuss it today. Email us feedback.

Other discussion topics and announcements are welcome.

Best Paper Award selected by the Industrial Board

Best Paper Award selected by the Industrial Board

Jürgen Geiger, Felix Weninger, Antti Hurmalainen,
Jort Gemmeke, Martin Wöllmer, Björn Schuller,
Gerhard Rigoll and Tuomas Virtanen

*The TUM+TUT+KUL approach
to the 2nd CHiME Challenge: Multi-stream ASR
exploiting BLSTM networks and sparse NMF*