

DAGA 2018

March 19-22, 2018

Munich, Germany

Auditory and instrumental evaluation of conference phones

Jan Reimes, Christoph Nelke

The usage of conference phones is getting more important in today's business life. As an alternative to face-to-face meetings, conference calls can save traveling time and cost. However, for good user experience, conference devices have to provide good quality regarding speech communication.

The standard recommendation ITU-T P.340 defines speech quality performance requirements of conference phones, but so far in a provisional state. For example, the current version only addresses one-to-one communication. Obviously, conference phones are generally used in multiple-talker scenarios at the near-end. Moreover, the influence of typical ambient noises (e.g., fan noises or keyboard typing) is also not yet part of any quality measurement.

In order to investigate these two influences on speech quality of conference devices, a large measurement series in sending direction was conducted, including multi-talker scenarios and typical noise conditions. Different positions and angles between the talkers as well as multiple terminals were taken into account. Subsequent to the collection of these recordings, a substantial auditory evaluation according to ITU-T P.835 was carried out. The outcome of this evaluation allows pointing out individual shortcomings of the terminals.

Finally, the results of the listening tests are compared to common instrumental speech quality metrics.

Find more event abstracts in our >> [abstracts archive](#) <<