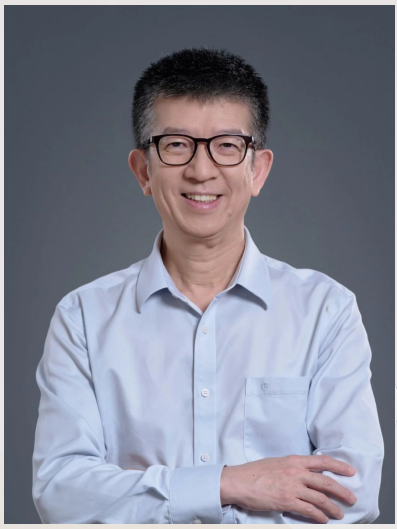
Speaker

Universitäts Klinikum



Haizhou Li

Professor, IEEE Fellow

Chinese University of Hong Kong (Shenzhen)

Content

Attentive Listening

Humans have a remarkable ability to pay their auditory attention only to a sound source of interest, that we call selective auditory attention, in a multi-talker environment or a Cocktail Party. As discovered in neuroscience and psychoacoustics, the auditory attention is achieved by a modulation of top-down and bottom-up attention. However, signal processing approach to speech separation and/or speaker extraction from multi-talker speech remains a challenge for machines. In this talk, we study the deep learning solutions to monaural speech separation and speaker extraction that enable selective auditory attention. We review the findings from human audio-visual speech perception to motivate the design of speech perception algorithms. We will also discuss the computational auditory models, technical challenges and the recent advances in the field.

Biography

Professor Haizhou Li (Fellow of Singapore Academy of Engineering, Fellow of IEEE, Fellow of ISCA) is the Dean and X.Q. Deng Presidential Chair Professor at the School of Artificial Intelligence and a courtesy professor at SDS, The Chinese University of Hong Kong, Shenzhen, China. He is also an Adjunct Professor at the National University of Singapore, Singapore and a Bremen Excellence Chair Professor at the University of Bremen, Germany.

Professor Li served as the Editor-in-Chief of IEEE-ACM Transactions on Audio Speech and Language Processing (2015-2018), and a Vice President (2024-2026) of IEEE Signal Processing Society. He was the President of the International Speech Communication Association (ISCA, 2015-2017), the President of Asia Pacific Signal and Information Processing Association (APSIPA, 2015-2016),. He was the General Chair of major scientific conferences including ACL 2012, INTERSPEECH 2014, and ICASSP 2022.

Host

Björn Schuller

Professor, IEEE Fellow

Health Informatics

TUM Klinikum

29.Setp

10:00--11:00

Hörsaal C

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