Q-AOS 九州大学 アジア・オセアニア研究教育機構 ブラウンバッグセミナー

Brown Bag Seminar No.216

2025 12.17 (wed.) 12:10 ~ 12:50

12:10-12:15 ◆ Introduction
12:15-12:40 ◆ Seminar (Presentation)
12:40-12:50 ◆ Q&A

Online (Zoom)
Scan here for Registration

https://us02web.zoom.us/webinar/register/WN_DUlmDHFWSMCAblsSngayMQ

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Teaching Machines to Detect What We Can't Feel

Key Words Machine learning / Multi-dimensional testing / Data fusion / Medical diagnosis / Fitting of hearing aids / Screening of glaucoma

Professor **Wong Willy**

Faculty of Information Science and Electrical Engineering Department of Informatics

Willy Wong is a Professor in the Department of Informatics, Faculty of Information Science and Electrical Engineering. Prior to coming to Japan, he served as full professor at the University of Toronto, where he was for nearly 25 years. He received his Bachelor's degree in Physics and his Master's and Doctoral degrees in Physics and Biomedical Engineering, all from the University of Toronto. Prof. Wong's connection with Japan began in the late 1990s, when he conducted postdoctoral research through the JSPS program. Since then, he has maintained long and productive collaborations with many Japanese researchers on topics such as auditory science and retinal implants. His current research focuses on developing algorithms for sensory impairments and advancing theoretical neuroscience.

I will discuss two machine learning algorithms we have developed to address practical challenges in vision and hearing testing. The first accelerates testing when many similar measurements must be taken simultaneously. The second combines results from different testing modalities, allowing a clearer picture to emerge from multiple sources of information. These challenges are not unique to sensory testing—they occur widely in medicine whenever multiple measurements must be performed and interpreted. The algorithms will be illustrated with examples from my ongoing collaborations in hearing-aid fitting and glaucoma screening.

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