

### **IGSN**-SYMPOSIUM

Monday, June 17<sup>th</sup> 2024 • 15.00 (3 pm)

FNO - 01 / 117

# Multisensory integration and cross-modal plasticity with emphasis in hearing and touch

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## Seeing with technology: Exchanging the senses with sensory substitution and augmentation

What is perception? Our sensory modalities transmit information about the external world into electrochemical signals that somehow give rise to our conscious experience of our environment. Normally there is too much information to be processed in any given moment, and the mechanisms of attention focus the limited resources of the mind to some information at the expense of others. My research has advanced from first examining visual perception and attention to now examine how multisensory processing contributes to perception and cognition. There are fundamental constraints on how much information can be processed by the different senses on their own and in combination. Here I will explore information processing from the perspective of sensory substitution and augmentation, and how "seeing" with sound and touch can advance fundamental and translational research.

#### Host:

FATIMA SOFIA AVILA CASCAJARES

Cognitive Neuroscience, Department of Neuropsychology, Faculty of Psychology, Ruhr University Bochum

