



# Sensory Processes: From Molecules to Cognition

April 12 - 13, 2016, Veranstaltungszentrum, Ruhr University Bochum

Tuesday April 12, afternoon ( 13:40 – 16:20 )

## Session 2 Neuronal Networks and Circuits

### BENEDIKT GROTHE

Ludwig-Maximilians-University München /  
Max Planck Institute of Neurobiology, Martinsried

### The evolution of neuronal circuits for sound localization

Different evolutionary origins of tympanic ears with different anatomy in taxa of significantly different sizes living in different ecological niches caused quite different constraints for the evolution of spatial hearing.

I will review the consequences of the evolutionary constraints on the development of neuronal circuits and coding strategies and present new evidences for specific structural and physiological adaptations in this context.