Prof. Dr. Angelika Lingnau
Secretary: Kerstin Ludwig
Telefon +49 941 943- 3852
Universitätsstraße 31
93053 Regensburg, Germany
Sekretariat.Lingnau@ur.de
23.05.2022

Guest Lecture
Thursday, 09.06.2022, 14:15 – 15:45
Room: ZH3

Title: Neural mechanisms underlying the efficiency of
naturalistic vision

Speaker: Marius Peelen

Donders Institute for Brain, Cognition and
Behaviour

Radboud University

https://www.peelenlab.nl/

Abstract.
Our daily-life visual environments, such as city streets and living rooms, contain a multitude of objects. Out of this overwhelming amount of sensory information, our brains must efficiently select, recognize, and act on those objects that are relevant for current goals, such as cars when crossing a street. Visual, memory, and attention systems have developed and evolved to optimally perform real-world tasks like these, as reflected in the remarkable efficiency of natural scene perception. It is increasingly appreciated that the brain makes use of a wide range of available information (e.g., scene context, statistical regularities) to facilitate the detection and recognition of objects in natural scenes. In this talk, I will present some of our recent work investigating the neural mechanisms underlying the efficient detection of objects in natural scenes. I will focus on fMRI, MEG, and TMS studies investigating the neural basis of rapid attentional guidance, context-based object perception, and the influence of real-world positional regularities on object representation and attentional competition.