



Life Sciences Seminar

Retinotopic and target specific processing of visual information in the superior colliculus

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Host: Maximilian Jösch

The rules by which neurons in the brain choose which inputs to sample are not fully understood. Here we address two related questions. First, do sensory neurons display ordered spatial arrangements about different sides of natural borders in the visual field? Second, what is the relationship between the sensory inputs sampled by neurons in a brain area and its projection target? Here we present evidence using in-vivo two-photon imaging and transsynaptic viral tracing that circuits of the superior colliculus demonstrate strong organization principals centered either around where in the visual world they look, or to which downstream target they project. These results illustrate the important coherence between the organization of inputs and response properties in the visual system and suggest a re-analysis of the circuit and receptive field organization of the superior colliculus from an ecological perspective.

Thursday, November 29, 2018 11:00am - 12:00pm

IST Austria Campus Mondi Seminar Room 1, Central Building



This invitation is valid as a ticket for the IST Shuttle from and to Heiligenstadt Station. Please find a schedule of the IST Shuttle on our webpage: <https://ist.ac.at/en/campus/how-to-get-here/> The IST Shuttle bus is marked IST Shuttle (#142) and has the Institute Logo printed on the side.