The Observer as an Information Integrator

12:00 - 13:00, Friday, March 22, 2019
Room 385, Geography Building, Zhongbei Campus, ECNU
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Abstract:

In the past, perception scientists – especially psychophysicists – focused on understanding perceptual information processing by using experiments with as few variables as possible. One or a few variables meant less interference and contamination, and showed the true role and sensitivity of the system being studied. However, even die-hard psychophysicists have come to understand that studying systems and processes in isolation doesn’t tell you the whole story. Indeed, if multiple sensors contribute to a percept, the outcome is often not predictable based on data from measurements of the responses of the sensors in isolation. One particularly important form of integration that has been previously ignored involves information from motion sensors and movement sensors, in combination with the vestibular system. In Sydney, we use motion simulators, wide field stimuli, and virtual reality to gain insight in these integrative processes. I will show experimental data investigating human performance when multiple sensors are active at the same time. Updates on ongoing projects will also be given.