Andrei Gorea: Internship projects

Time Perception
Is Perceived Duration (PD) based on the read-out of one or many clocks? In the latter case (sustained by a number of recent psychophysical and imagery studies) are such clocks specific to stimulus features (such as color or shape) and/or to sensory modalities (visual, auditory)? Do such multiple clocks interact and how (e.g. are such interactions of the assimilation or of the contrast type)? Is PD influenced by subjects being active (vs. passive) and by their actions being intentional (vs. externally triggered)? Etc.

Introspecting the fulfillment of one’s own actions
To what extent do we have knowledge of our internal noise perturbing a simple motor action (pointing to a target) and how does our introspection compare with an ideal observer? In these series of experiments Subjects will have to point at a target that disappears once their hand starts moving and, without seeing their hand, will have to decide whether a dot-probe that subsequently appears on the screen is placed either at the location of their pointing or at some other location. Variants of this protocol will also be studied.

Working Memory
To what extent does working memory (WM) of a given visual feature (e.g. orientation or size) influence once perceptual accuracy of that feature? The project aims at bridging the gap between phenomenological descriptions of WM capacity and physiological properties of their putative neuronal instantiation, via the non-trivial assumption that mnemonic and sensory representations share the same neuronal substrate.