

# DSV Seminars 2019



## *PhD Program in Neural and Cognitive Sciences*

**Wednesday, July 17, 2019 - 11:00 a.m.**

Conference room, Museo dell'Antartide, ground floor,  
W Building, Via Weiss 21



## **Vision and haptics in action**

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The target of a grasping action is usually represented in visual coordinates, but it can also be specified by additional haptic (proprioceptive) cues when we grasp with one hand an object held by the other hand (e.g., reaching for a lid while holding a jar). In such cases we can potentially plan and execute our actions based on a combination of distance and size cues provided through both vision and haptics. However, whether these multisensory signals lead to actual behavioral benefits is still an open question. In this talk I will summarize our research about how are visual and haptic signals integrated in multisensory grasping and I will show that only haptic distance cues in concert with visual signals are needed for optimal multisensory grasping. Furthermore, I will show that haptic distance cues play an important role also in perceptual size constancy. These findings suggest a previously disregarded role of haptic information in learning and calibration processes both in action and perception.

