



## Workshop on the The Science and Engineering of Surface Tactile Displays

Monday June 22, 2015, Northwestern University

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Recent years have witnessed accelerated research on tactile displays based on surface haptics where the objective is to stimulate fingertips directly from the contact with a smooth, transparent surface. Owing to their numerous applications, this type of tactile display has attracted considerable attention from academia and industry and the like. The workshop will address the science and the engineering of such displays, beginning with a discussion of the latest results in the neurophysiology of touch, continuing with advanced notions in the biotribology of fingertips, skin mechanics and mechano-transduction, tactile perception and finishing with the physics and engineering of surface displays.

09h00-09h25 **Johan Wessberg**, University of Gotenberg, Sweden

Prof. Wessberg, a world reknown specialist of the neurophysiology of touch, will describe the peripheral neural mechanisms engaged during the interaction of fingers with surfaces.

09h25-9h50 **Michael Adams**, University of Birmingham, UK

Prof. Adams, is a committed advocate of supradisciplinary research and innovation in products and processes. He has made fundamental contributions in solid-solid interactions and will present recent progress in the contact mechanics and tribology of the human finger pad.

9h50-10h15 **Jean-Louis Thonnard**, Université Catholique de Louvain, Belgium

Prof. Thonnard is an expert in psychophysics and touch-driven prehension. He will discuss the latest results of how the physics of tribology impact perceptual and motor behavior.

10h15-10h30 *Morning Break*

10h30-10h55 **Vincent Hayward**, Université Pierre et Marie Curie, France

Prof. Hayward has experience in the design of tactile displays and has interest in how mechanical stimulation is transformed into percepts. He will describe recent results on tactile illusions of interest to the design of tactile displays.

10h55-11h20 **Betty Semail**, Université Lille I, France

Prof. Semail is a specialist in the design and control of electro-active systems. Her work in the control field has led to numerous publications and patents on tactile devices. She will describe the latest advances in the design, modelling and manufacturing of tactile surface displays.

11h20-12h30 **Joint event: Posters and Career Fair**

The workshop is motivated by the achievement of the mid-point of the PROTOTOUCH program, a EU-funded research/training program involving eleven PhD students and four Postdoctoral fellows who will present research posters.

<http://www.prototouch.org/?q=content/fellows-involved-prototouch>

This event will also double as a 'career fair' with several invited industrial participants whether or not they are associated with the PROTOTOUCH project in the capacity of the partners or advisory members.