



Workshop 4: Tactile Acuity and Interaction with Surfaces: Mechanisms and Applications

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We interact daily with many surfaces and we effortlessly identify their properties and features. This ability relies on highly precise tactile interactions between the glabrous skin of the finger and the touched surfaces. The talks will explore how the tactile system resolves microscale differences between different materials and surfaces, and how frictional cues play a crucial role in both conscious perception and unconscious dexterous manipulation. They will also compare various tactile cues, such as vibrations or friction elicited during grip and touch, and will connect them to the neural mechanisms of touch. The implications for haptic devices will be covered, highlighting both areas where devices contribute to better knowledge and potential innovative applications. The workshop will bring together researchers who have significantly contributed to this field and provide a unique opportunity to discuss the role of tactile acuity and surface perception in both fundamental research and applied contexts.

Workshop Website: <https://sites.google.com/view/whc25-workshop-tactile-acuity/home>