Workshop 8: Haptic Materials from Physics to Perception

Organizer(s): Nedim Goktepe (INM – Leibniz Institute for New Materials) and Müge Cavdan (Justus Liebig University Giessen)

In daily life, we touch and manipulate objects of different materials to gather information and make decisions based on material properties. While these day-to-day interactions seem trivial, they underlie complex multilevel interactions spanning from physical material properties to skin features and various cognitive factors. Thus, understanding how haptic material perception is formed at different levels and physical scales requires research from many fields, including chemistry, physics, psychology, and engineering. Therefore, it takes a joint interdisciplinary effort to solve the puzzle of haptic material perception and develop applications. As a step towards this direction, our workshop will bring together and connect research from different fields to provide a more holistic understanding of haptic material perception. With the invited talks of experts from different fields, we will discuss haptic material perception from the window of material science, psychology, and engineering.

Workshop Website: https://sites.google.com/view/haptic-materials