Abstract

We demonstrate tactile illusions wherein features of two vibration stimuli presented to different body sites are perceptually mixed. When two stimuli are presented to the same hand with different onset timing of few dozens of milliseconds, the performance of temporal order judgment for the stimuli is worse than when two stimuli were presented to different hands (mix in timing information). When low- and high-frequency sinusoidal vibrations were simultaneously presented to different hands, they were perceptually mixed into an intermediate frequency (mix in frequency information). These illusions tell us how the tactile system integrates cutaneous information from different sites, and generates unified percept of the world.

Timing mixing

Perceived timings are confused depending on stimulated site

Texture mixing

Stimulus attributes are perceptually mixed across different hands

Related work


Contact

Scinob Kuroki  Sensory Representation Research Group, Human Information Science Laboratory
E-mail: kuroki.shinobu(at)lab.ntt.co.jp (Please replace {at} with @)