



Mittwoch, 06.04.2016, um 16:00 Uhr

Ort: Reichenhainer Str. 90;

Zentrales Hörsaal- und Seminargebäude, Raum 2/N013

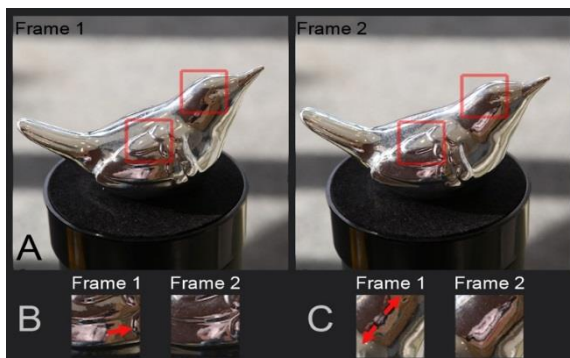
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Department of Psychology

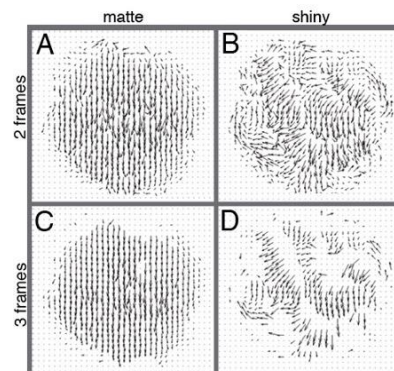
Material Qualities and Image Motion

Many biological decisions require an ability to visually estimate material properties, from telling whether food is edible to determining whether the ground is slippery. Humans can effortlessly visually sense dynamic physical properties such as viscosity, or stiffness, and optical properties such as transparency or glossiness, and easily discriminate between material classes. Though material recognition is likely as important for survival as navigating or recognizing objects, it is not well understood how the brain recognizes materials. In this talk I will focus on image motion as a potential source of information that the visual system uses when estimating material qualities. In highlighting the interdependence of perceived surface reflectance and 3D shape, I will show that optic flow provides cues which can be used by humans and computer vision algorithms to discriminate between matte and specular surfaces.



A: Two successive frames taken from a rotating specular object.

B and C: distortion of appearance in dense specular flow.



Optic flow computed over a distance of 2 (top) and 3 (bottom) frames for matte and specular rotating objects.



Alle Zuhörer sind ab 15:45 zu Kaffee und Tee vor dem Hörsaal eingeladen.

Informationen zum Vortrag erteilt:

Prof. Dr. Michael Schreiber, Tel. 0371 531-21910