



University
of Basel

Department of
Biomedical Engineering



Seminar Series:

Latest Breakthroughs in Biomedical Engineering Research

Location: DBE Science Lounge, Hegenheimermattweg 167C, 4123 Allschwil

Date & Time: Thursday 21.11.2024 | 15:30 – 16:30

Host: Prof. Bert Müller

Noninvasive Assessment of the Intracranial Pressure-Volume State

Prof. Dr. Vartan Kurtcuoglu

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Abstract

Space-occupying neurological disorders alter the physiological intracranial pressure-volume state. Measurements of intracranial pressure and compliance provide information relevant for diagnosis and clinical management of such pathologies. However, all clinically viable acquisition methods are invasive. This talk introduces a new noninvasive approach based on the capacitive measurement of the head's dielectric properties.

Biosketch

Vartan Kurtcuoglu is the head of The Interface Group at the Department of Physiology of the University of Zurich. He has joint appointments at the Faculties of Medicine and Science as professor of computational and experimental physiology and is an accredited professor at the Department of Mechanical and Process Engineering of ETH Zurich. His research interest is the convergence of engineering, biological and medical research to address clinical needs.