

## Physikalisches Kolloquium Einladung

## Physics Colloquium Invitation

## Monday, 24 January 2022 BE AWARE - ROOM CHANGE!! Lecture Hall 025 - H2, 16:15

BE AWARE - ROOM CHANGE!! Lecture Hall O25 – H2, 16:15

AND Online via ZOOM

## Closing the Loop in Medicine with Digital Health Technologies

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Digital technologies are changing the field of medicine and health. Ubiquitous medical devices can be used as point-of-care tools to measure and timely deliver personalized medical treatments across the whole continuum of care. However, this comes with a number of technical and medical challenges that will guide the research and development of digital health technologies in the coming years. In this talk, I will highlight how medical automation and artificial intelligence can open new avenues to enable easy access to medical services outside specialized clinical centers and to personalize treatment. How can high quality clinical decisions be made outside the strongly controlled medical environment? I call for intelligent user-machine interaction where difficult or error-prone tasks are delegated to the device. Automated, closed-loop methodologies, together with machine learning will have huge impact on future medical technologies and will find applications in many medical domains, from prevention to treatment.



Host: Prof. Dr. Jens Michaelis, Institute of Biophysics

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