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Sano Computational Medicine Seminars

Monday, 07 June 2021, 14:00-15:30 (CEST)

Join us via Zoom: https://seminar.sano.science/

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Selected aspects of segmentation and registration in medical imaging

Abstract

Manual analysis of medical images is time-consuming even for skilled radiologists, therefore automation of this process is highly desired. An automatic approach to two important problems in medical image analysis will be discussed, namely segmentation and registration. The goal of segmentation is to distinguish different types of tissue, organs, or tumors, which is useful for visualization and measurements. Registration is the process of aligning images from separate examinations of the same organ, for comparison or fusion of information. This presentation will provide an overview of classical and deep learning techniques used to address both problems. Important challenges will be highlighted, including medical doctors' views on the practical usage of different solutions.

Dr. Filip Malawski holds a PhD in computer science and an Eng. in biomedical engineering from AGH University of Science and Technology, Krakow, Poland. He works as an assistant professor at the Institute of Computer Science, AGH-UST. His research focuses on computer vision, signal processing, pattern recognition and machine learning, including their application in medical data analysis. He is also the coordinator of medical informatics course for computer science students at AGH-UST.

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