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EEG and Wearable Sensors for Epilepsy

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Message from the Guest Editor

Mobile EEG and wearables offer new options for the monitoring of seizure frequency and the warning of seizures. Their use is of high interest for the detection of seizure-associated risks to patients, for differential diagnoses of rare seizure types and the prediction of seizure-prone periods.

In addition to EEG, which is traditionally used in the diagnosis of epilepsy accelerometry, EMG, heart rate and further autonomic parameters are recorded to capture seizure manifestations and daily live activities.

However, the continuous acquisition of multimodal sensor signals also comes with new challenges related to signal quality over long recording intervals, the usability of sensors and devices in the daily life of the patients and a high need for the automated (pre-) processing of the sensor data. Distant monitoring will require the establishment of new eco-systems for data transfer, analysis and storage.

This Special Issue aims to present novel developments for sensors, automated signal processing, pattern recognition and the description of platforms to integrate the recordings for the clinical use of this unknown amount of novel sensor data.



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Special Issue



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Message from the Editor-in-Chief

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