

Special Issue

Non-Invasive Neural Technology in Analysing Spinal Cord Activity

Message from the Guest Editor

Despite the advantage that intrathecal recording techniques are safe, recording the activity of the spinal cord at the cutaneous level offers several advantages. First, these methods can be more comfortably applied to human participants. Second, cutaneous-level recordings are relatively easy to perform. Third, recordings at the skin level are cost-effective, as they do not require specialized equipment or training and can rely on reusable, non-disposable electrodes. However, the possibility of recording spinal cord activity non-invasively is hindered by several technical challenges.

The aim of this Special Issue is to provide a comprehensive overview of the recent developments in technologies employed for the non-invasive recording and analysis of spinal cord activity. We welcome the submission focusing on, but not limited to, non-invasive recordings of spinal cord activity, novel electrode designs, signal processing techniques, artifact reduction strategies, machine learning applications, wearable neurotechnologies, clinical applications in neurorehabilitation, and translational studies that bridge experimental and human research.

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