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# Addressing Challenges in Modeling Human Head Anatomy for Stroke Monitoring with EIT

*lundi 12 juin 2023 15:00 (30 minutes)*

In this talk, we explore the challenges encountered while implementing a computational framework for stroke monitoring using Electrical Impedance Tomography (EIT). Our focus is on accurately modeling human head anatomy based on a library of MRI scans and integrating real-world data obtained from physical experiments.

Accurately representing anatomical surfaces, such as the brain, skull, and scalp, presents significant challenges in stroke monitoring with EIT. We discuss the complexities involved in capturing the intricate geometry of these surfaces and present meshing techniques that ensure faithful representation of the underlying anatomy.

An important milestone in our project is the successful reconstruction of real-world data acquired from physical experiments, assuming prior knowledge of the geometry. This proof of concept demonstrates the effectiveness of our computational framework in stroke monitoring.

By addressing these challenges, our project contributes to advancing the field of stroke monitoring with EIT, with the ultimate goal of improving early detection and treatment outcomes. In this talk, we discuss insights into the implementation aspects of modeling human head anatomy and utilizing real-world data, underscoring the potential of EIT as a tool for stroke monitoring.

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