

From neurology to methodology and back : an introduction to clinical neuroengineering / Natasha Maurits

Deskripsi Lengkap: <https://lib.ui.ac.id/detail?id=20401512&lokasi=lokal>

Abstrak

From neurology to methodology and back offers a translational study of neurology and technology from both sides. The fundamental topics covered range from basic concepts such as sampling and simple statistical measures via Fourier analysis to source localization. Providing clinically relevant context and introduce technical concepts, the neurological diseases presented range from epilepsy, brain tumors and cerebrovascular diseases to tremor, MS and neuromuscular diseases. All topics are presented in a true clinical neuroengineering approach.

Each chapter begins with one or more patient cases for inspiration. Each case is then presented to illustrate a working example of a distinct neurodiagnostic technique, and the mathematical and physical principles underlying these techniques are explained. Finally, the author returns to the patient, and examines how the presented technology can help provide a diagnosis for each case.