

Talk 206, Poster 26

Some Statistical Issues in Multi-Electrode Motor Cortical Plasticity

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The ability to record large numbers of neurons simultaneously has led to important neurophysiological findings, and made possible the construction of brain-controlled robotic devices (neural prostheses).

In addition, chronic implants provide an opportunity to discover neural substrates of learning. Effective data analysis requires, among other things, careful description of tuning curves, and adaptation of tuning curves while the subject learns. Effective real-time implementation requires signal extraction to interface flexibly with data acquisition, control, and data logging components in a modular experimental system. We discuss these aspects of our effort, together with preliminary results.

PI Website

<http://www.stat.cmu.edu/~kass>