BIOSTATISTICS SEMINAR

Neuroimaging for the Treatment of Aphasia

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The Center for the Study of Aphasia Recovery (C-STAR) aims to improve the lives and communication skills of patients after they suffer strokes. My work focuses on translating tools and statistical methods designed for neurologically healthy adults for this population. The implications are huge: brain imaging can guide brain stimulation and identify which patients will benefit from particular treatments. This will provide personally optimized treatment. Here I describe two challenges. First, how we are able to warp the shape of each individual's brain to a common shape. This step is crucial for making population inferences, yet can be perturbed by the presence of lesions. Second, I describe how our conventional statistics and machine learning can be applied to this population.