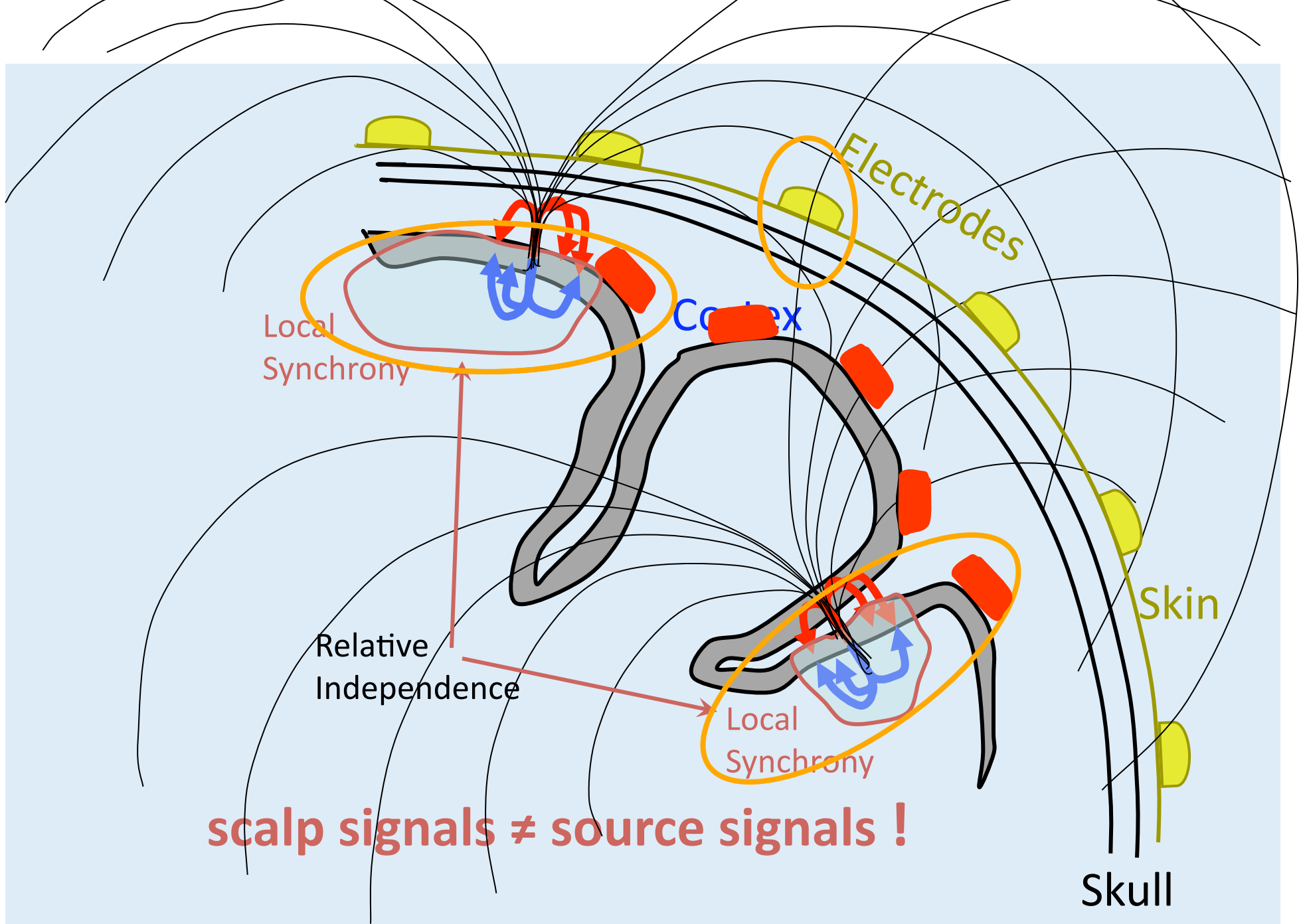


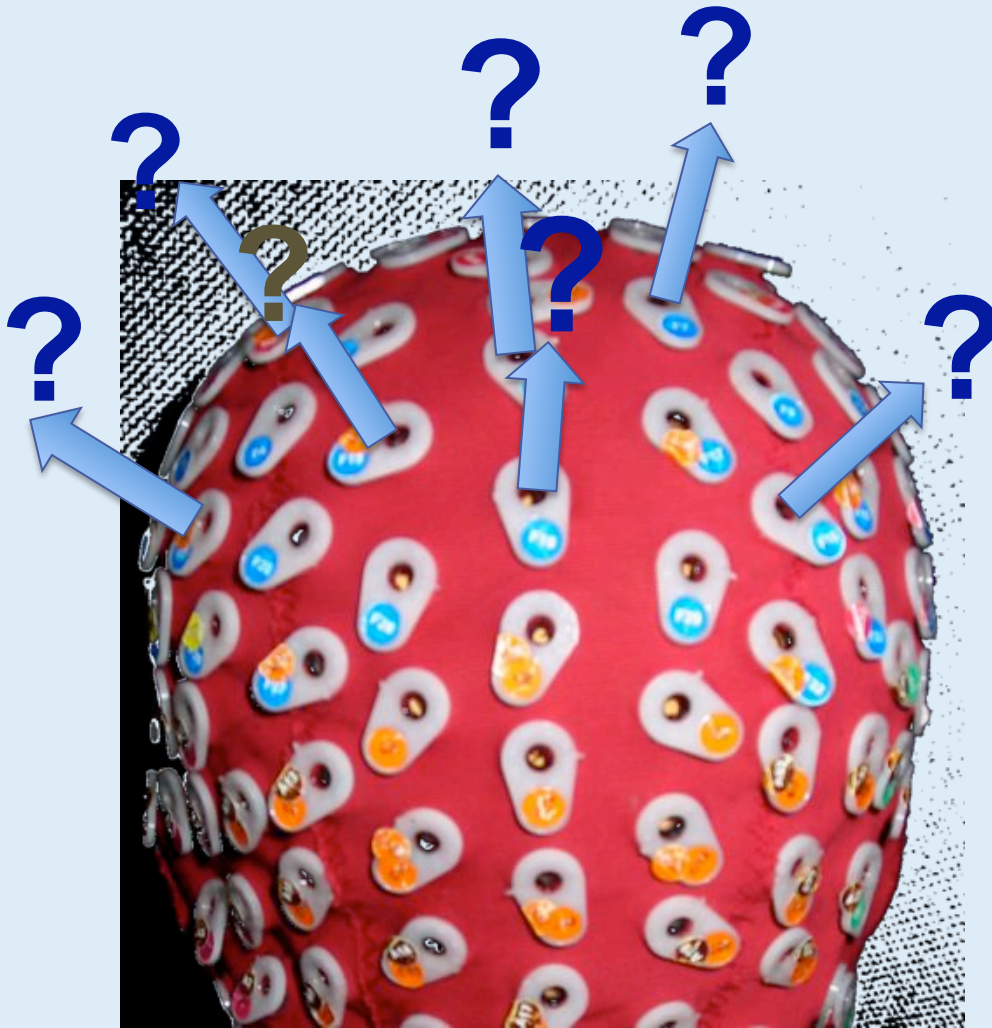
Brain EEG \neq Scalp EEG

scalp signals \neq source signals !

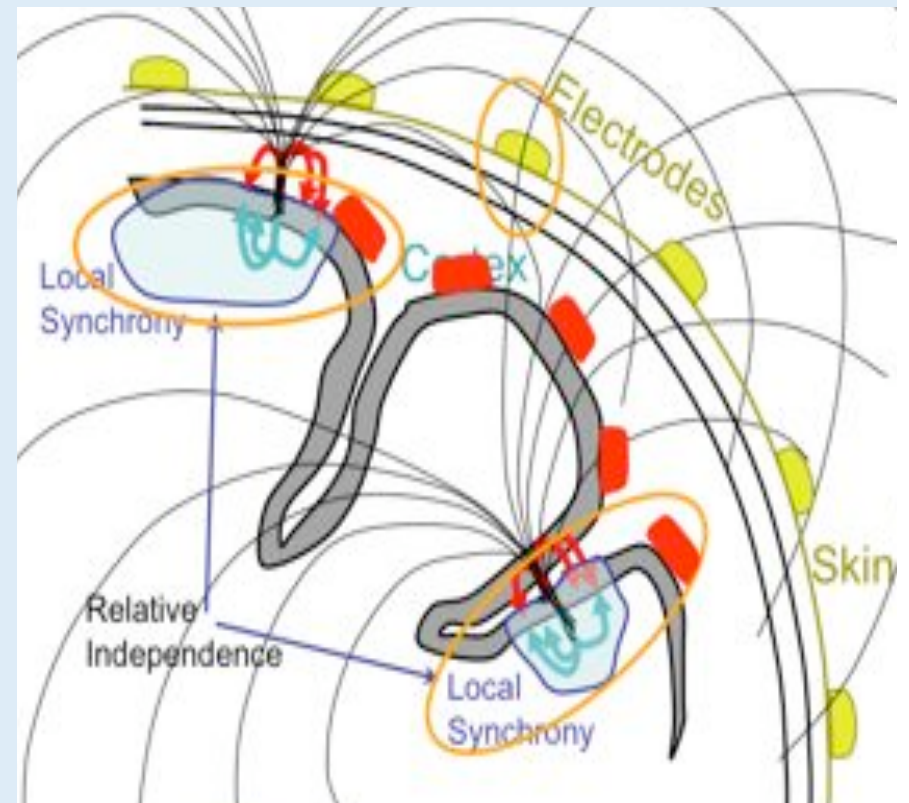


scalp signals \neq source signals !

Naïve 2-D interpretation of EEG signals?



Cortical EEG signal projection patterns as point processes

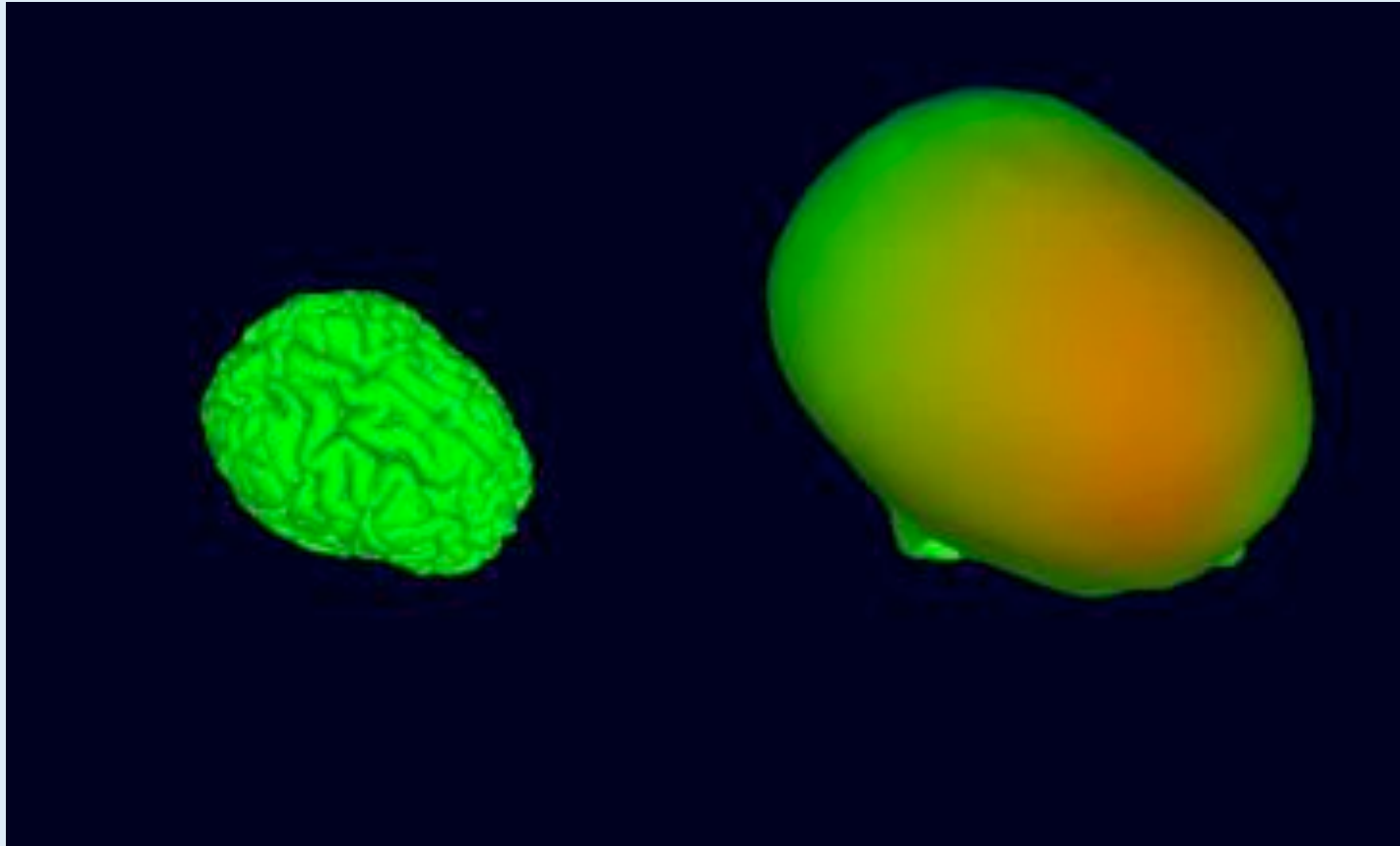


Actual cortical source volume conduction patterns (cartoon)

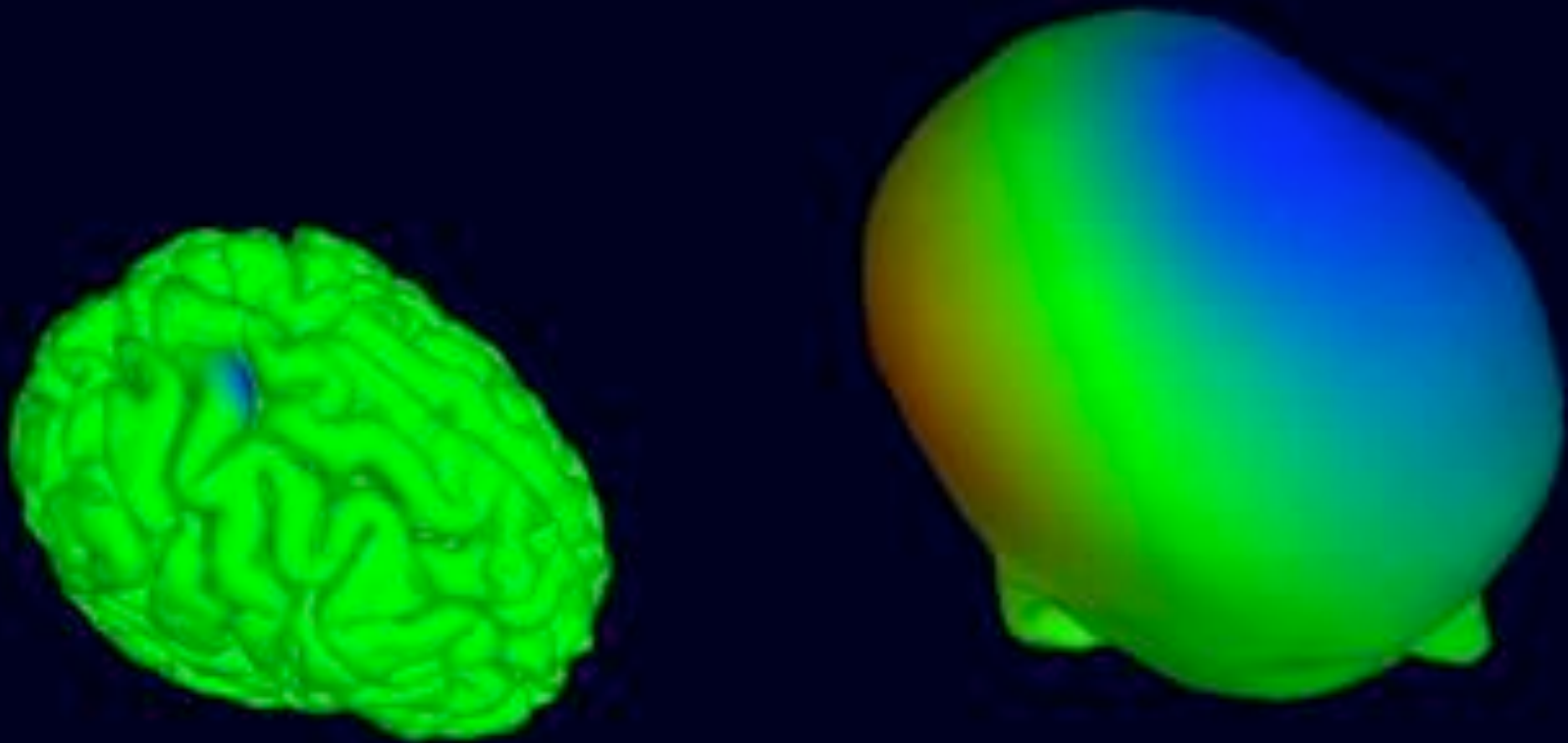


"Surely, Dr. Lowe, if there were gravity waves, we would have detected them by now."

The very broad EEG point-spread function



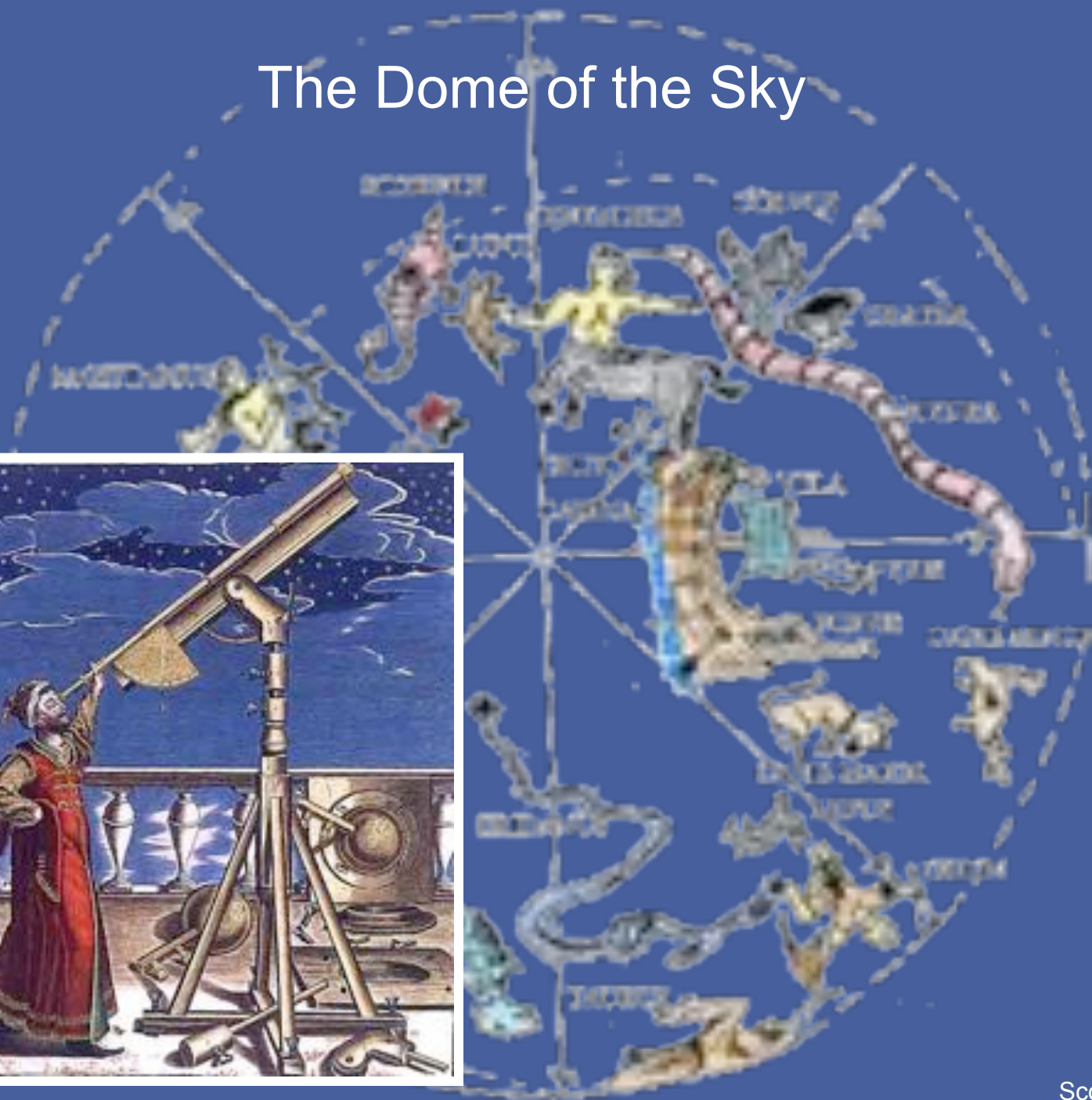
The very broad EEG point-spread function



Single spatially labile source

Z. Akalin Acar & S. Makeig 2010

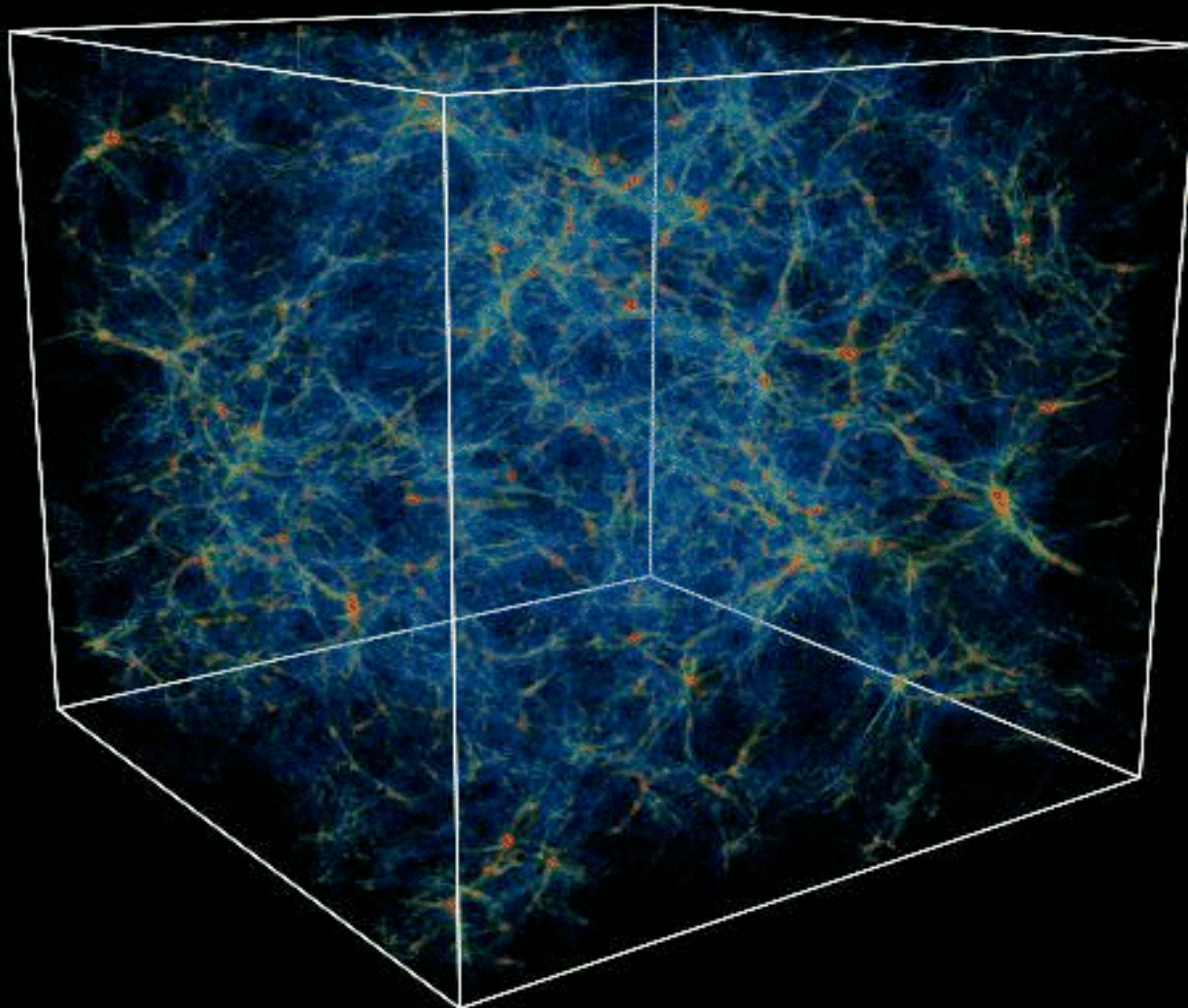
The Dome of the Sky



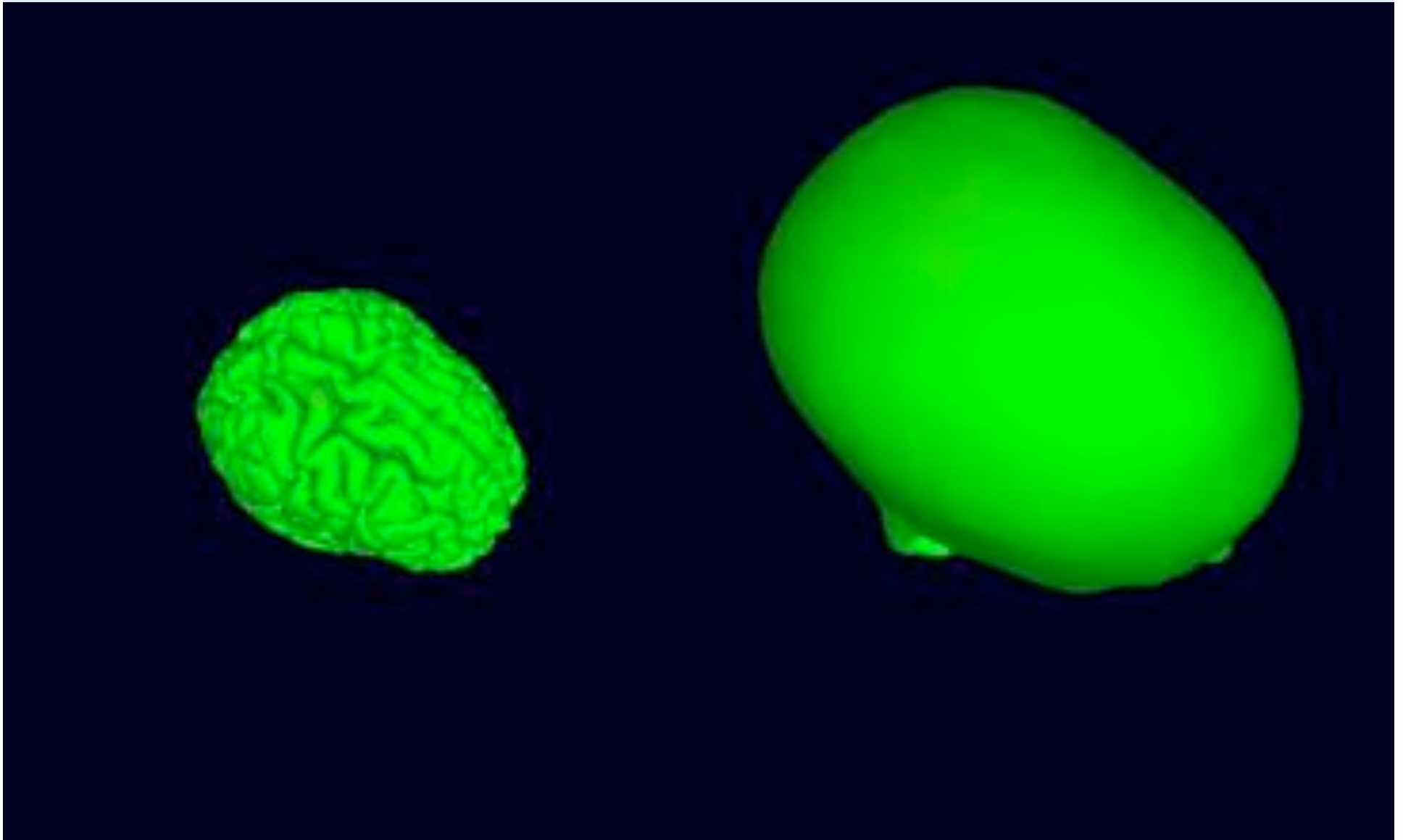


Stephen L. Alvarez

3-D structure of the Universe



The very broad EEG point-spread function



Spatially static cortical patch source

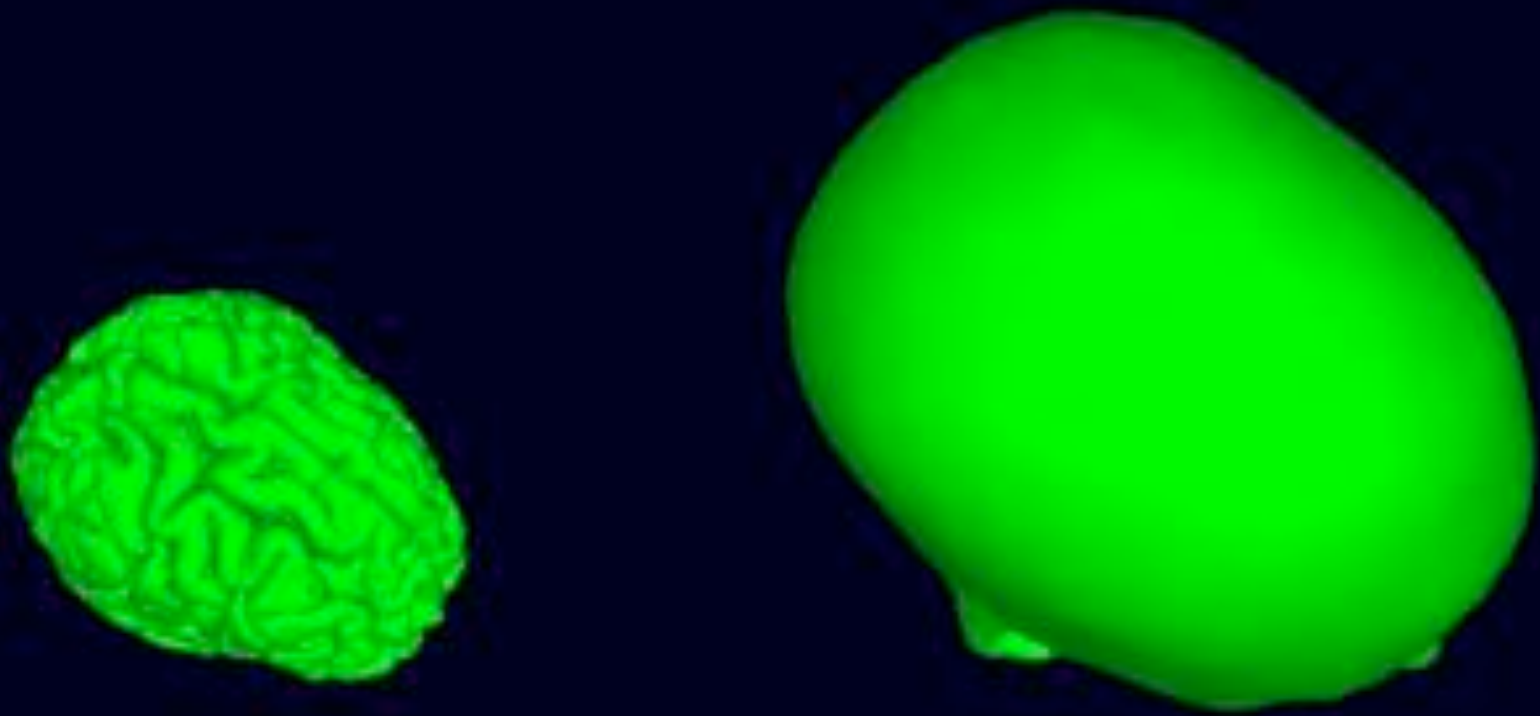
Z. Akalin Acar & S. Makeig 2010

Phase cones (Freeman)

Avalanches (Plenz)

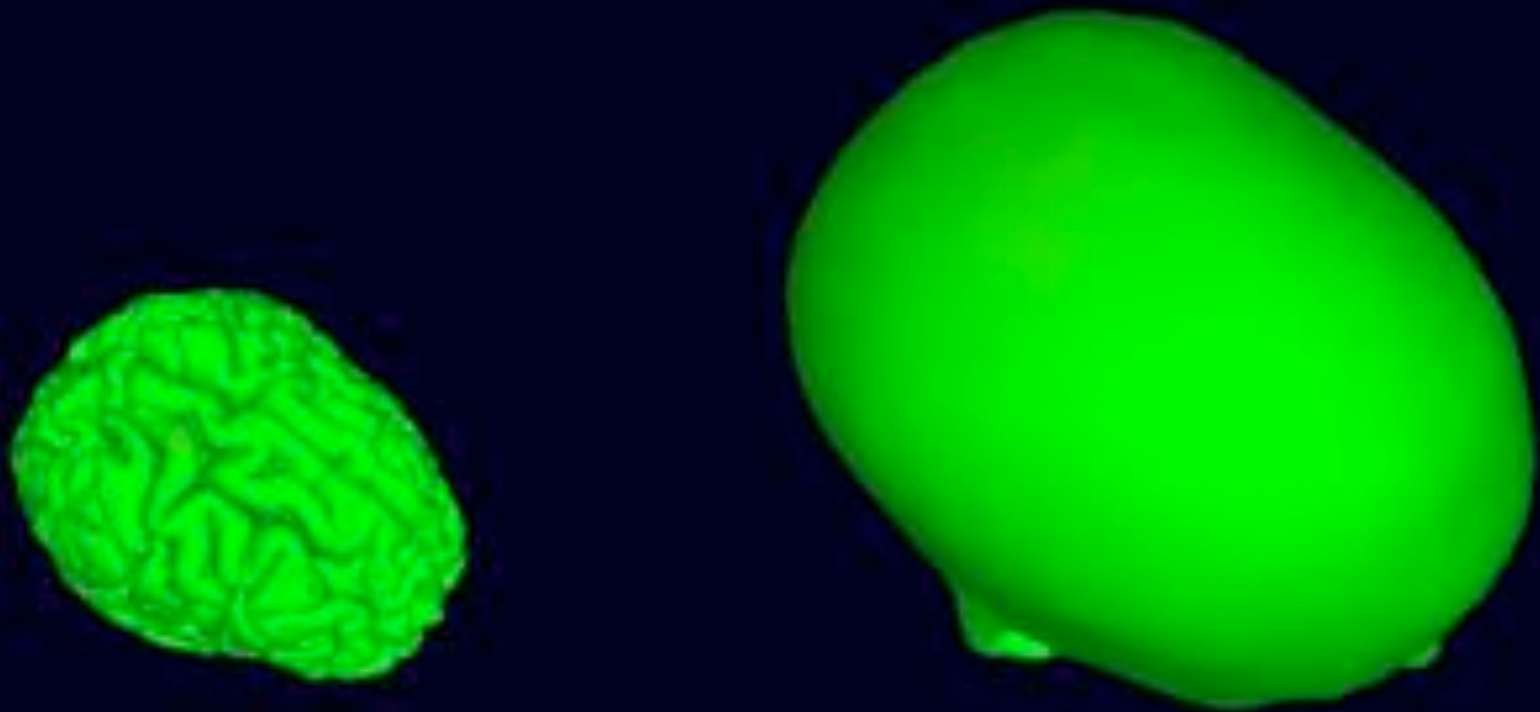


The very broad EEG point-spread function



Phase lag, center to edge: 18°

The very broad EEG point-spread function



Phase lag, center to edge: 0°