عنوان مقاله:

exploring relationship between fMRI and MEG usnig a new model

محل انتشار:

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خلاصه مقاله:

for the first time we quantitatively explore the relationship between MEG and fMRI signals with many simulation results we show the possibility of detectivng activation by fMRI in a voxel while the voxel is silent for MEG and vice versa this is due to the fact that fMRI signal reflects the sum of PSP's strengths independent of their directions but MEG signal reflects the vector sum of the PSPs which depends on their directions the crosstalk from neural activities of adjacent voxels in fMRI and properties of the inverse problem in MEG generate different spatial responses in the .two modalities which we illustrate using several simulation studies

کلمات کلیدی:

blood oxygen level dependent BOLD , post synaptic potential PSP , equivalent current dipole ECD , action potential AP balloon model