

SPM

Filtering is applied to both sides.

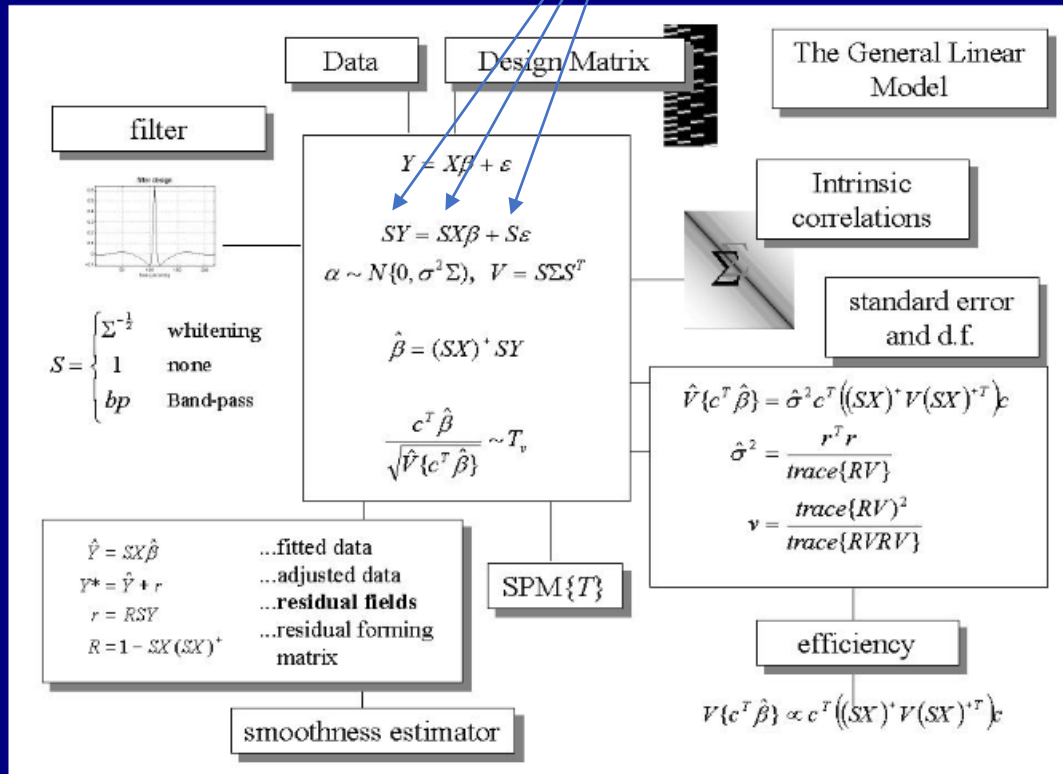


Figure 3. The general linear model.

Statistical Parametric Mapping

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<https://www.fil.ion.ucl.ac.uk/spm/course/slides02/overview/Stats.htm>

fNIRS

Filtering is not applied to X.

Homer2/3

S = bp(Bandpass)

$$Y = X\beta + \epsilon$$

$$SY = X\beta + S\epsilon$$

Question:

Please let me know the reason, the background of “filtering is not applied to X”.

Dr. Huppert corrects that filtering should be applied to both sides.

T.J.Huppert, “Commentary on the statistical properties of noise and Its implication on general linear models in functional near-infrared spectroscopy”, Neurophotonics, 010401 Vol.3(1), 2016