Spm A General Linear Approach Mit Csail

02 general linear model - filn.ucl *- the general linear model (glm) ged ridgway wellcome trust centre for neuroimaging university college london spm course vancouver, august 2010* ***general linear model for fmri: bases of statistical analyses*** *- general linear model for fmri: bases of statistical analyses spm beginner's course – april 2013 cyril pernet, phd university of edinburgh* ***the general linear model and statistical parametric mapping*** *- ...a voxel by voxel hypothesis testing approach →reliably identify regions showing a significant experimental effect of interest • the general linear model &* ***the general linear model for fmri - tnu*** *- overview of spm glm for fmri 2 realignment smoothing normalisation general linear model image time-series statistical parametric map (spm) parameter estimates* ***modelling single-subject fmri data*** *- the general linear model (glm) what do we do with the parameter values? in the finger tapping example we would perform a test at each voxel to see whether the signal change from rest was significantly* ***discos spm glm 2 - coma science group*** *- c. phillips, centre de recherches du cyclotron, ulg, belgium the general linear model, part ii the general linear model, part ii discos spm course, crc, lidiscos spm course, crc, liège, 2009ège, 2009* ***the general linear model - unil*** *- the general linear model guillaume flandin wellcome trust centre for neuroimaging university college london spm course lausanne, april 2012* ***2nd level (group) general linear model - gaab lab*** *- • spm's approach, but other packages can act differently • if all subjects (within a group) have equal within-subject variance (homoscedastic), this is ok • if within-subject variance differs among subjects (heteroscedastic), this may lead to a loss of precision* ***fmri basics: single subject analysis using the general ...*** *- fmri basics: single subject analysis using the general linear model with acknowledgements to matthew brett, rik henson, and the authors of human brain function (2 nd ed)* ***discos spm glm 1 - coma science group*** *- c. phillips, centre de recherches du cyclotron, ulg, belgium the general linear model, part i the general linear model, part i discos spm course, crc, lidiscos spm course, crc, liège, 2009ège, 2009* ***the general linear model (glm)*** *- image a very simple experiment& time question: is there a change in the bold response between listening and rest?* ***statistical parametric mapping (spm) 2008*** *- statistical parametric mapping (spm) 2008 analysis with the general linear model • the general linear model has the form (mardia et al., 1979, eq. 6.1.1) y = xb+ u, where y(scans×voxels) is the image data, x(scans×design variables) is the 'design matrix' and b(design variables × voxels) contains para-meters to be estimated and tested. the residuals u are usually as-sumed gaussian ...* ***spm: a history - questions and answers in mri*** *- wise statistical analysis. at that time, the general linear model (glm) formulation of statistical testing was not known in the community, so each type of analysis was done by a different matlab function. particular treatments, or stimuli, are likely to elicit whole patterns of signal change throughout the brain. because the objective was to localise regionally specific effects, voxel-by ...* ***experimental design of fmri studies - tnu*** *- overview of spm general linear model statistical parametric map (spm) parameter estimates design matrix gaussian field theory p*