

fMRI

BOLD

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VBM

stereotaxic

(CSF)

fMRI

BOLD

VBM

fMRI

MRI

VBM

PET

BOLD

VBM

fMRI  
fMRI

VBM

BOLD

fMRI

fMRI PET

[ ]

[ ]

fMRI

[ ] UCL

[ ]

fMRI

( VBM)

)

x

$\beta$   $\gamma=[\gamma_1, \dots, \gamma_6]$  ) (N2 N1  
( ) (F2 F1  
.)

$\partial\Omega/\partial\gamma$   $\Omega(x)$  / (SOA)

[ ] B spline T2 EPI )  
) TE (  $\times$  (  $\times$   
( ) TR ( )  
( )  
TR EPI (BOLD)  
(  $\times \times /$  ) /

B A A NIFTI  
MRI  
B A  
TR B B fMRI  
A TR B B MRI

[ ]

MRI fMRI  
fMRI  
(fMRI) MRI  
MRI  
[ ]  
z y x  $\Omega(x)$  . z y x  
( )  $\tau(x)$   
: [ ]  $\tau(x)$   $\Omega(x)$   $q(x, \gamma)$

$$\beta \cdot \tau(x) \approx \Omega(x) + \sum_k \gamma_k \partial\Omega(q(x, \gamma)) / \partial\gamma_k$$

[ ]

(MI)

( )

( [ ] )

MI (FWHM)

) MRI fMRI ( )

[ ] MRI ( WM) ( GM) (CSF)

[ ] " " MRI ( )

[ ] SPM5 T test F test

**BOLD**

BOLD fMRI ([ ] (MNI) CSF WM GM)

HRF ( )

[ ] (F2 F1 N2 N1)

SPM5 ( )

× ۱۵ CSF WM GM

WM GM T test F test

CSF WM GM MRI

F test T test T test

( ) MR

F test .CSF WM GM

) T test fMRI

F ( )

( ) fMRI

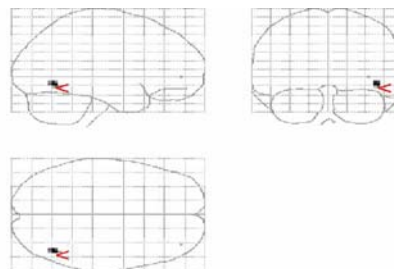


( ) MR

.CSF WM GM

fMRI

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(45, 48, 27)

[ ]

BOLD

VBM

fMRI

BOLD

- <sup>1</sup> Voxel-based morphometry
- <sup>2</sup> cerebro-spinal fluid
- <sup>3</sup> stimulus onset asynchrony
- <sup>4</sup> echo-plannar imaging
- <sup>5</sup> epoch
- <sup>6</sup> blood oxygenation level dependent
- <sup>7</sup> axial slice
- <sup>8</sup> Neuroimaging Informatics Technology Initiative
- <sup>9</sup> realignment
- <sup>10</sup> Haemodynamic response
- <sup>11</sup> Mutual Information
- <sup>12</sup> gray matter
- <sup>13</sup> white matter
- <sup>14</sup> Montreal Neurological Institute
- <sup>15</sup> a priori probability
- <sup>16</sup> Full-width at half maximum
- <sup>17</sup> dispersion

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