

# Short-Time Fourier Transform Covariance and Selection, A Feature Extraction Method for Binary Motor Imagery Classification

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- A feature extraction method STFT covariance that integrates spatial-time-frequency domain information is proposed.
- The novel feature selection method, the infinite feature selection, is introduced in the proposed method to improve the stability and effectiveness.
- Good classification average accuracy and stability of  $83.8\% \pm 14$  are obtained in the BCI Competition IV DataSet IIb.

