

Robust Spatial Filtering with Beta Divergence

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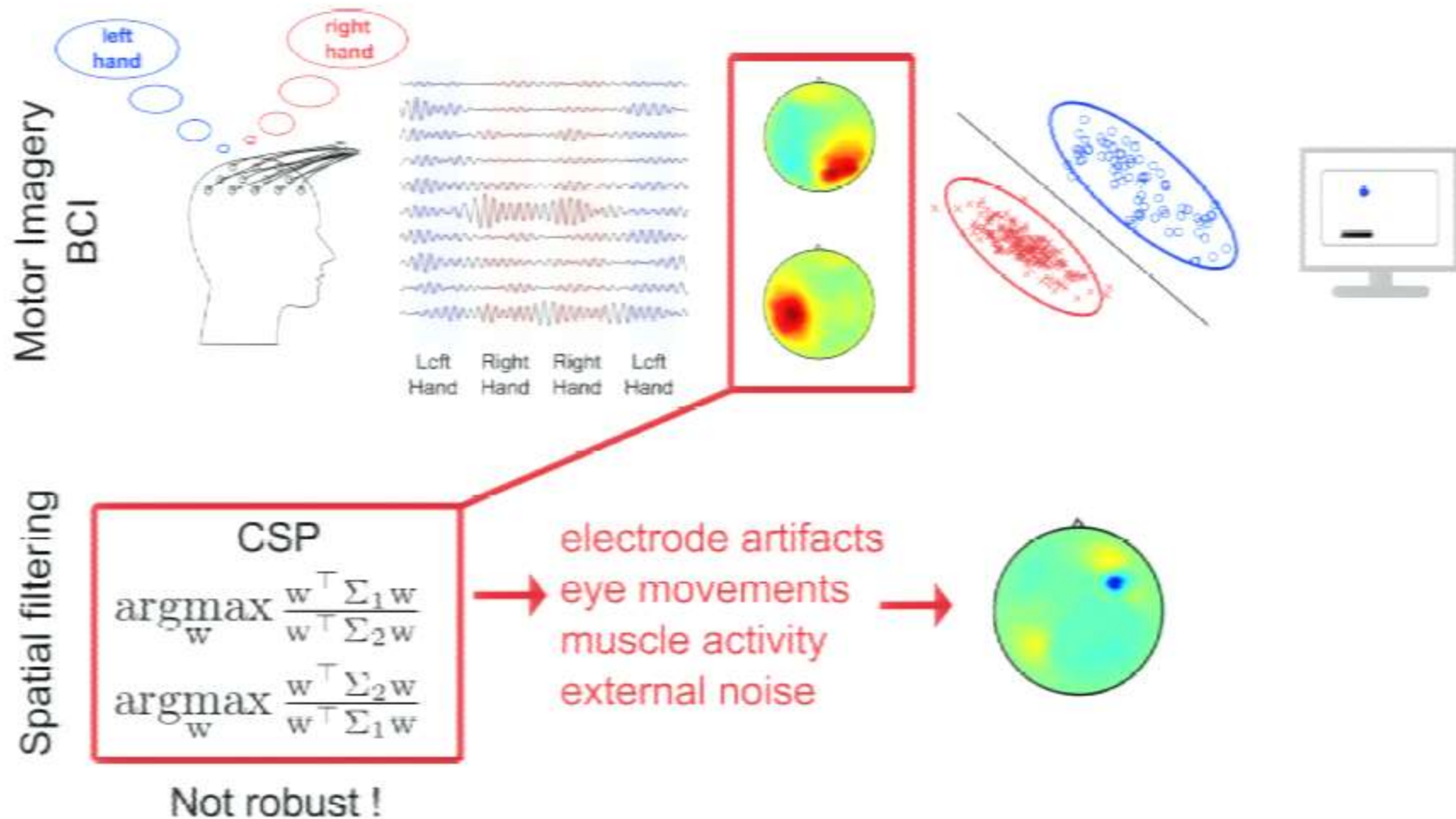
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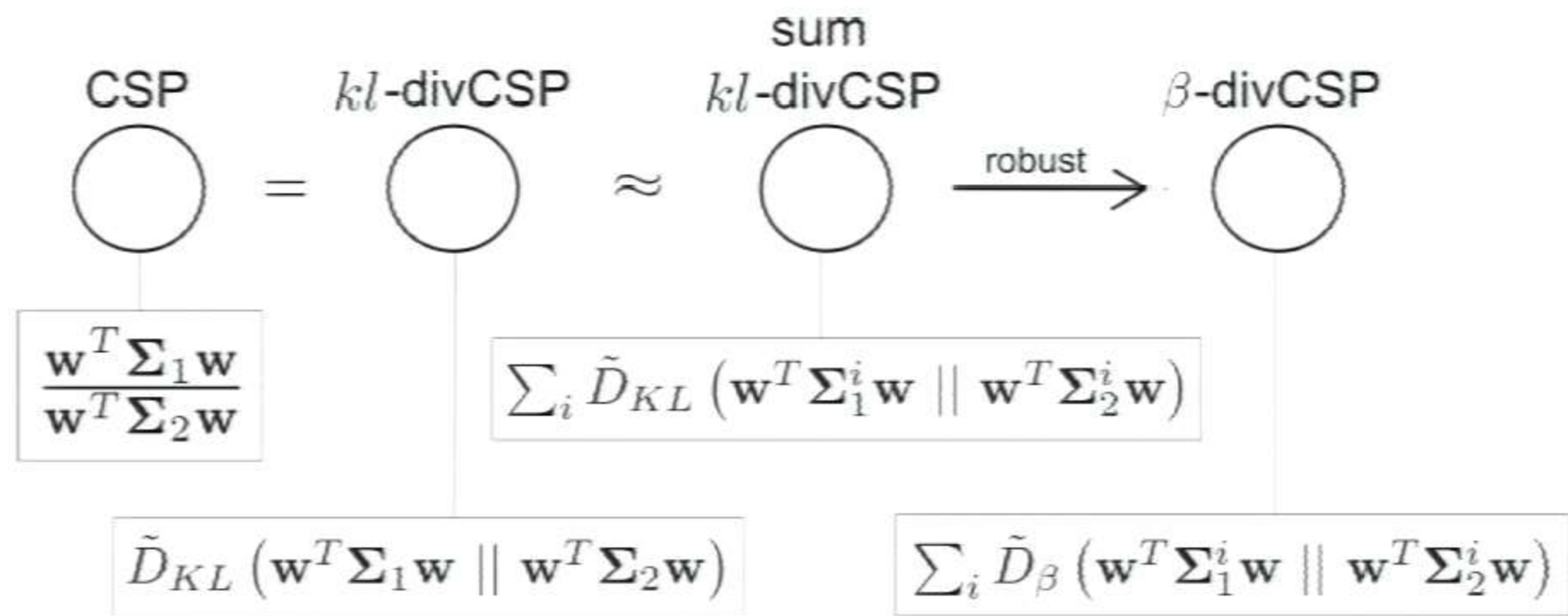
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Code available at
www.divergence-methods.org

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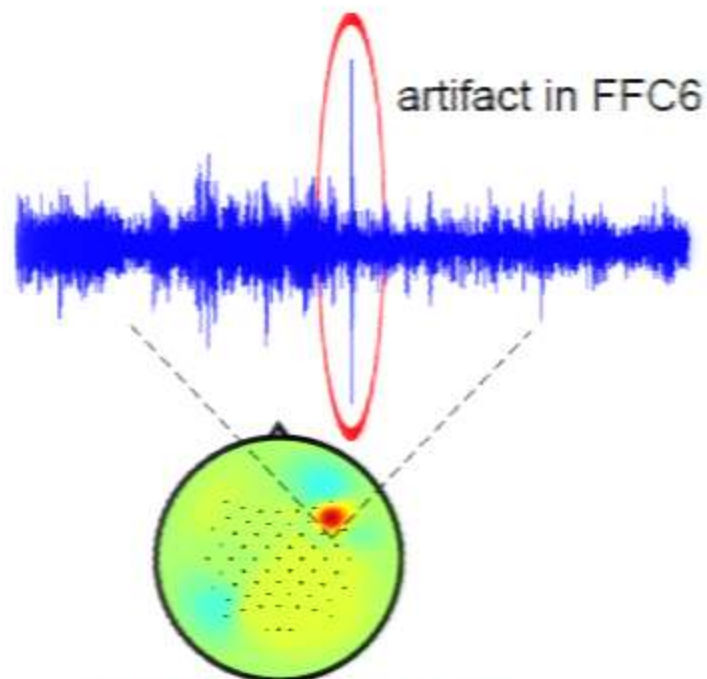
Idea: Formulate CSP as symmetric KL divergence maximization problem and robustify the algorithm by using β -divergence.



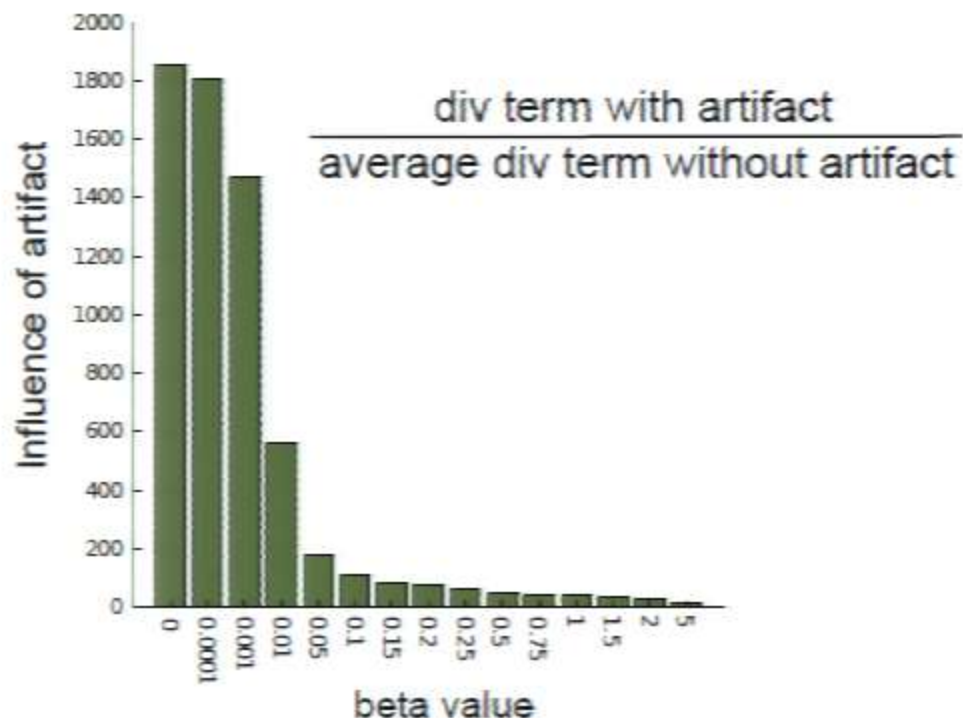
Symmetric β -divergence between $f(x)$ and $g(x)$ is defined as

$$\tilde{D}_\beta(f(x) \parallel g(x)) = \frac{1}{\beta} \int (g^{\beta+1} + f^{\beta+1} - f^\beta g - g^\beta f) dx$$

It downweights the influence of outlier trials in $\beta\text{-divCSP}$!



CSP pattern captures
artifactual activity !



For other advantages of divCSP and results check out our poster

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