

The Same Analysis Approach: Detecting, Avoiding, and Eliminating Confounds in MVPA

Kai Gorgen, BCCN Berlin

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In This Talk

Topics

- Examples of how a number of common measures against confounds fail
- Introduce the **Same Analysis Approach (SAA)**, a systematic method to detect a larger number of confounds (Görgen et al, in prep)

Important: Although I talk about standard MVPA practice

- Here, all **examples are univariate**
- Indeed: **Difference MVPA – GLM is not only multi- vs. univariate, but also pipeline & H0**
 - Pipeline: MVPA typically CV & decoding, out-of-sample statistic, UNIV: classical tests, in-sample statistics
 - Hypothesis testing: MVPA Presence of *Information*, H0: Difference in the mean
 - E.g. Allefeld, Görgen, Haynes, in prep
- There is **nothing wrong about MVPA** in general, nor with any individual component that I talk about, including cross-validated decoding, design principles, control analyses
- The problems arise from ***Design-Analysis-Interactions***

SAA is not restricted to MVPA

- Similar considerations apply to other fields that employ complex analysis pipelines (including 'standard' statistics)



If you are interested in the talk:

- Please write me a short e-Mail to kai.goergen@bccn-berlin.de (or kai.goergen@gmail.com), and **explicitely acknowledge that you will NOT distribute the talk in any form** (as in: If your friend's interested, he should write me a similar e-mail), then I am happy to send you/him/her the talk

Best, Kai