

Workflows for sharing multimodal recordings in BIDS format

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Abstract / Short description

The Brain Imaging Data Structure (BIDS) is a standard for organizing and describing neuroimaging datasets. It provides a standardized framework for structuring data generated from various neuroimaging modalities, and recently, also motion capture.

The goal of this workshop is to empower participants to convert their recorded data from XDF format (labstreaminglayer) to BIDS and tag it with metadata in a way that facilitates data sharing.

In the first part of the workshop, participants will learn about BIDS, apply a MATLAB based XDF to BIDS converter (optionally on their own data), and prepare their dataset for sharing.

In a second part, participants will learn about best practices when submitting their data to remote repositories. To this end, we supply a template repository and explain its components in a hands-on manner.

The workshop will close with a group workout on automated composition of a paper's methods section, using BIDS metadata and LLMs.

Keywords

Reproducibility, BIDS, Data Sharing, Matlab

Prerequisites

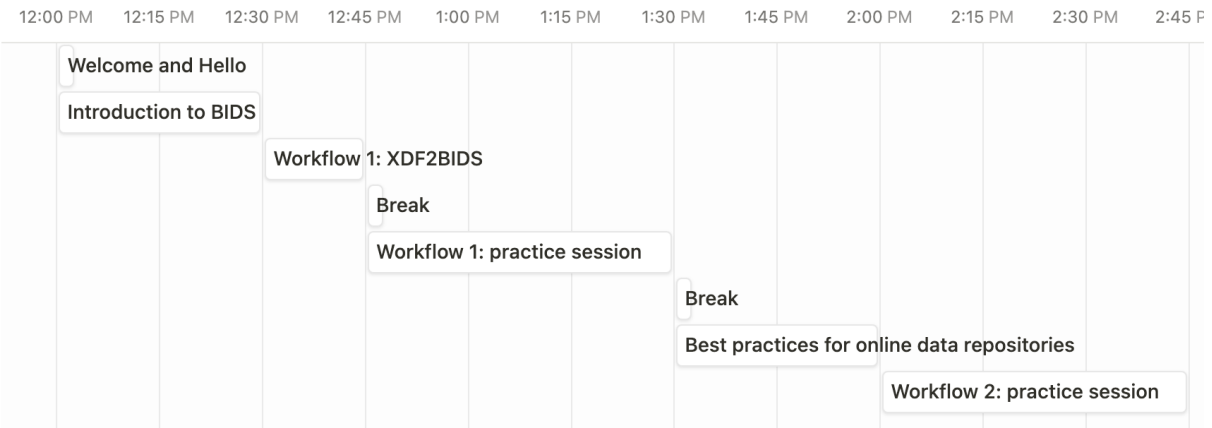
Matlab 2019 or newer, preferably latest 2024 Version

Toolboxes:

- FieldTrip <https://www.fieldtriptoolbox.org>
- Some specific functions that will be shared with the attendees: bemobil_xdf2bids, bemobil_bids2set
- bids-matlab-tools <https://github.com/scn/bids-matlab-tools>

Tentative Schedule for a 2 to 4-hour session - Monday, July 8th pm

>> July 8, 2024



References & recommended Reading

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- Gorgolewski, K. J., Auer, T., Calhoun, V. D., Craddock, R. C., Das, S., Duff, E. P., ... & Poldrack, R. A. (2016). The brain imaging data structure, a format for organizing and describing outputs of neuroimaging experiments. *Scientific data*, 3(1), 1-9.
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- Poldrack, R. A., Markiewicz, C. J., Appelhoff, S., Ashar, Y. K., Auer, T., Baillet, S., ... & Gorgolewski, K. J. (2023). The Past, Present, and Future of the Brain Imaging Data Structure (BIDS). arXiv preprint arXiv:2309.05768.