Viewing FSL results with SPM and vice versa
Thomas Maullin-Sapey, Peter Williams, Guillaume Flandin, Thomas Nichols, Camille Maumet

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Introduction

A growing number of efforts are emerging in the neuroimaging community to increase reproducibility of research findings (e.g. [1,2]). In an attempt to facilitate publishing of neuroimaging data and metadata, the Neuroimaging Data Model (NIDM) defines a set of specifications based on semantic web technologies.

The NIDM-Results specification was recently introduced, providing a machine-readable representation of mass univariate statistical results, including extensive metadata and key images summarising the findings [3].

NIDM-Results packs can be generated from SPM [5] and FSL [6]. However few tools exist to read and display NIDM-Results.

Here, we introduce two NIDM-Results viewers, one each oriented for users accustomed to SPM and FSL, two of the most widely-used neuroimaging analysis softwares [7].

Results

Conclusion

We hope that the viewer will facilitate the adoption of the NIDM-Result format for sharing of statistical results in the neuroimaging community as well as interoperability across software packages. This work is part of a growing ecosystem of tools for NIDM and it is our intention to develop more applications to further increase the practical utility of NIDM-Results. Other projects also include the creation tools for meta-analysis of neuroimaging data.

References


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Fig. 1. Viewing the results of the same group fMRI study with SPM and FSL. The corresponding NIDM-Results pack is available at: http://neurovault.org/collections/1692/fsl_group_ols.nidm.

SPM-style view

FSL-style view

Machine-readable metadata

Unthresholded statistic maps

All cluster & peak locations

NIDM-Results

Sample FSL Viewer

Thresholded statistics

Selected peak locations

Published

Figure (selected slices)

Selected peak locations

Usage

View a NIDM-Results pack with:

nidm_results_display('fsl_group_ols.nidm.zip')
nidmviewerfsl fsl_group_ols.nidm.zip

Useful links


NIDM-Results specification: http://nidm.nidash.org/specs/nidm-results.html.

Getting started with NIDM: http://nidm.nidash.org/getting-started/.