Methods & models for fMRI data analysis – HS 2016

Translational Neuromodeling Unit

Universität Zürich UZH

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Eidgenössische Technische Hochschule Zürich
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Exam details

- Date: 10.01.2017

- Time: 13:00 – 14:30

- Location: ETZ F 91

- Bring with you: Something to write (Pen), your Legi and an ID.

- No other material is allowed

- 36 MC questions, 90 min time

Example questions

The following three example questions give you an idea of the type of questions in the exam.

!!! Important: These are three example questions - all on the same topic. Hence, they do not give any indication for the content and/or difficulty of exam questions. !!!

Which of the following answers is correct?

a) fMRI measures the magnetic properties of glia cells.
b) fMRI measures the ratio between gray and white matter movement.
c) fMRI measures the BOLD signal.
d) fMRI measures the blood flow averaged over cortex.
e) fMRI measures the total amount of blood in a cortical area.

Which of the following statements is NOT correct?

a) fMRI measures the magnetic properties of glia cells.
b) fMRI measures a signal that depends on blood oxygenation.
c) fMRI measures the BOLD signal.
d) fMRI measures a signal that depends the relative blood volume in a voxel.
e) fMRI measures a signal that depends indirectly on neural activity.

Which combination of the following statements is correct?

(1) fMRI measures the magnetic properties of glia cells.
(2) fMRI measures the total amount of blood in a cortical area.
(3) fMRI measures a signal that depends on blood oxygenation.
(4) fMRI measures the BOLD signal.
(5) fMRI measures the ratio between gray and white matter movement.

a) All five are correct
b) (1), (3) and (4) are correct.
c) Only (4) is correct
d) (3) and (4) are correct.
e) (2) and (4) are correct.