

Studying Feedforward and Feedback Signal Integration

Submission ID 3000226
Submission Type Poster
Topic Neuroscience
Status Submitted
Submitter Lars Muckli
Affiliation University of Glasgow

SUBMISSION DETAILS

Presentation Type Oral Presentation

Presentation Abstract Summary This brief neuroscientific review addresses the importance of understanding how feedforward and feedback information streams are integrated in the brain in order to achieve associative processing. Particular attention is paid to the layered structure of the cortex, the functional segregation of feedforward and feedback signals to different cortical layers, and the impact of feedback on sensory perception. We also note the ability of ultra high-field functional MRI to densely record both feedforward and feedback signals in the human brain based on its sensitivity to dendritic processes in different layers of cortex and highlight several findings which relate these signals to cortical feedback. We believe that furthering our understanding about the integration of feedforward and feedback signals in the brain is a highly interdisciplinary challenge that has the potential to greatly impact the fields of neuroscience, computer science and engineering.

Paper Upload (PDF) [Muckli_Morgan_Petro_FF-FB_CCN2017.pdf](#)

Co-author Information

* Presenting Author

First Name	Last Name	Affiliation	E-mail
Lars *	Muckli *	University of Glasgow	lars.muckli@glasgow.ac.uk
Andrew T	Morgan	University of Glasgow	Andrew.Morgan@glasgow.ac.uk
Lucy S	Petro	University of Glasgow	Lucy.Petro@glasgow.ac.uk

Keywords

Keywords

predictive coding
fMRI
Early Visual Layers
visual cortex