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Plasticity of visual field representations

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**Plasticity of visual field
representations**

Joana Carvalho

Cover description

"The smoky brain" designed by Ana Fernandes. This cover represents the plasticity of the visual cortex. The smoke without form, malleable, denotes the visual information from the moment light reaches the retina until it is processed in the visual cortex - similar to the light rays coming from the old cinema projectors. The colors are typical from the retinotopic mapping representations.

Plasticity of visual field representations

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Plasticity of visual field representations

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to obtain the degree of PhD at the
 University of Groningen
 on the authority of the
 Rector Magnificus Prof. C. Wijmenga
 and in accordance with
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This thesis will be defended in public on

Monday 6 July 2020, at 11.00 hours

by

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born on 6 March 1992
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Acronyms

AC	Anterior Commissure
AMD	Age-related Macular Degeneration
AS	Artificial Scotoma
ASPZ	Artificial Scotoma Projection Zone
BIC	Bayesian Information Criteria
BOLD	Blood Oxygen Level Dependent
CI	Confidence Interval
CF	Connective Field
CH	Calinski Harabasz
DB	Davies-Bouldin
DWI	Difusion Weighted Imaging
EV	Explained Variance
ECM	Exponential Contrast Mask
FDR	False Discovery Rate
FDT	Frequency Doubling Technology
FF	Full Field
FI	Filling-in
fMRI	functional Magnetic Resonance Imaging
GF	Gain Field
GB	Gabor
HFA	Humphrey's Field Analyzer
HRF	Haemodynamic Response Function
HSF	High Spatial Frequency
LCR	Luminance Contrast Retinotopy
LH	Left Hemisphere
LO	Lateral occipital (cortex)
MD	Mean Deviation
MP	Micro-Probing
MRI	Magnetic Resonance Imaging
MT	Middle Temporal
OCR	Orientation Contrast Retinotopy

OCT Optical Coherence Tomography
PC Posterior Commissure
PM Predictive Masking
POAG Primary Open Angle Glaucoma
pRNFL peripapillary Retinal Nerve Fiber Layer
pRF population Receptive Field
RF Receptive Field
RGC Retinal Ganglion Cell
ROI Region of Interest
RF Right Hemisphere
S Silhouette
SD Standard Deviation
SS Simulated Scotoma
SAP Standard Automated Perimetry
SF Scotoma Field
SFR Spatial Frequency Retinotopy
SITA Swedish Interactive Threshold Algorithm
SPZ Scotoma Projection Zone
SSPZ Simulated Scotoma Projection Zone
TE Time of echo
TR Time of Repetition
V1 Primary visual area
V2 Secondary visual area
V3 Third visual cortex
VE Variance Explained
VF Visual Field
VFMD Visual Field Mean Deviation
VFD Visual Field Defect