IRIS ISABELLE ANNA GROEN

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PROFESSIONAL APPOINTMENTS

2020 – present	**University of Amsterdam, Informatics Institute, Amsterdam, The Netherlands** Assistant-professor (tenured). Affiliation with Department of Brain & Cognition, Psychology, UvA.
2017 - 2020	**New York University, Department of Psychology, New York, USA** Post-doctoral Associate with Dr. Jonathan Winawer (NYU).
2014 - 2017	**National Institutes of Health, Laboratory of Brain and Cognition, Bethesda, USA** Post-doctoral Fellow with Dr. Chris Baker.
2007 - 2008	**University of Amsterdam, Department of Psychology, Amsterdam, The Netherlands** Research assistant for Dr. Birte Forstmann and Dr. Steven Scholte.

EDUCATION

2009 - 2014	**University of Amsterdam, Department of Psychology, Amsterdam, The Netherlands** PhD (*cum laude*). Thesis title: *Scene statistics: neural representation of real-world structure in rapid visual perception*. Advisors: Prof. dr. Victor Lamme. Dr. Steven Scholte, Dr. Sennay Ghebreab.
2006 - 2009	**MRC Cognition and Brain Sciences Unit, Memory Group, Cambridge, UK** and **University of Amsterdam, Institute for Interdisciplinary Studies, Amsterdam, The Netherlands** MSc (*cum laude*), Brain and Cognition Sciences. Thesis title: *The role of medial temporal lobe structures in visual discrimination of objects and scenes: a combined patient and fMRI study.* Advisors: Dr. Morgan Barense, Dr. Rik Henson, Prof. dr. Lisa Saksida, Prof. dr. Timothy Bussey.
2003 - 2006	**University of Amsterdam, Institute for Interdisciplinary Studies, Amsterdam, The Netherlands** BSc (*cum laude*), Beta-Gamma, Psychobiology major.

AWARDS and GRANT FUNDING

2023. **Co-PI in Human-Aligned Video AI (HAVA) Lab funded by ELLIS and UvA DSC**, one PhD student. €330,000 (4 yr)
2023. **ELLIS Amsterdam PhD grant**, one PhD student. €330,000 (4 yr).
2022. Amsterdam Brain & Cognition talent grant to fund one post-doc. €100,000 (1 yr).
2021. **UvA's Data Science Center (DSC) Interdisciplinary PhD Program grant**, to fund one PhD student. €330,000 (4 yr).
2021. Accepted as member of European Laboratory for Leaning and Intelligent Systems (ELLIS).
2020. Nominated by the Dean of the Faculty of Science of UvA for membership of the Amsterdam Young Academy (AYA).
2019. **MacGillavry Fellowship from the Faculty of Science of University of Amsterdam**, to support 5yr tenure-track assistant-professorship. Selected as one of 6 from >400 applicants.
2019. **VENI grant from Netherlands Organization of Scientific Research (NWO)**. €250,000 (3 yrs). In total, 11/71 eligible applications were awarded (cross-domain section).
2019. NYU Faculty of Arts and Sciences Postdoctoral Travel award ($700)
2019. Females in Vision (FoVea) Travel and Networking award ($1600)
2017. Abstract Award for International Workshop on Concepts, Actions, Objects (CAOs), Rovereto, Italy (€ 200)
2015. **Rubicon postdoctoral fellowship**, **NWO**. €130,000 (2 yrs). Ranked #5 out of 44 applications (7 awarded).
2015. PhD Thesis prize from the Dutch Society of Psychonomics (NVP). Award covers a period of two years and is awarded among nominated theses with a cognitive neuroscience topic in The Netherlands. € 500
2010. FENS-IBRO European Summer School on Visual Neuroscience, Rauischolzhausen, Germany. 15% acceptance rate.
2009. Grindley Grant for Conference Attendance. Experimental Psychology Society, £ 500; Stunt-beurs from UvA. € 500
2008. Multiple individual travel grants to support training abroad: Erasmus Scholarship, Hersenstichting Nederland, Stichting Bekker-La-Bastide Fonds, Hendrik Muller's Vaderlandsch Fonds, and IIS Internationaliseringsbeurs. Total € 4500
2007. League of European Research Universities: Bright student conference, Stockholm, Sweden. 20% acceptance rate.
2006. Science Award from the Institute for Interdisciplinary Studies. € 500

INVITED TALKS

2025. **Keynote** at NeuroCog, Brussels, Belgium.
2024. Christmas Colloquium Anton Pannekoek Institute for Astrophyics, Amsterdam, The Netherlands.
2024. Speaker at Emerce E-Day, Amsterdam, Netherlands.
2024. **Keynote** at Computational Cognitive Science summer school, IICCSSS, Osnabruck, Germany (declined).
2024. **Keynote** at International Conference on Cognitive Modeling (ICCM), Tilburg, The Netherlands.
2024. Colloquium Current Topics in Perception and Cognition, Justus-Liebig-Universität Giessen, Germany
2024. Symposium "Temporal dynamics in Visual Perception" at Vision Sciences Society, Florida, USA.
2024. Symposium "Psychology and Artificial Intelligence" at U Bologna, Italy.
2024. **Keynote** at GDR Vision Forum, Grenoble, France.
2024. Symposium "Explaining the brain" at Dutch Society for Brain & Cognition, Egmond aan Zee, The Netherlands.
2023. International Symposium on the Mathematics of Neuroscience (NeuroMonster), Rhodes, Greece.
2023. Brain Inspired Computing workshop at TU Eindhoven, The Netherlands.
2023. Symposium at German Clinical Neuroscience Society, Hamburg, Germany.
2022. NeurIPS workshop Shared Visual Representations in Humans and Machines (SVRHM), New Orleans, USA.
2022. Colloquium Center for Cognitive Science, TU Darmstadt, Germany.
2022. Tutorial talk at European Conference on Visual Perception (ECVP), Nijmegen, The Netherlands.
2022. **Keynote** at Iberian Conference on Perception (CIP), Barcelona, Spain.
2021. **Keynote** at Annual meeting of the Italian Association of Cognitive Sciences (AISC) (declined).
2021. Intracranial EEG meeting, Comprehensive Epilepsy Monitoring Unit, NYU Langone, NYU, USA.
2020. Cognitive Neuroscience colloquium, University of Illinois Urbana-Champaign, Illinois, USA.
2020. Perception and Brain Dynamics Lab, Langone Medical Center, NYU Langone.
2019. **Keynote** at 5th CiNet Conference *Computation and Representation in Brains and Machines*, Center for Information and Neural Networks, Osaka, Japan.
2018. Donders Center for Cognitive Neuroimaging, Nijmegen, The Netherlands.
2016. Society for Neuroscience, Nanosymposium on Scene Perception and Spatial Navigation, San Diego, USA.
2015. NIMH Fellow's Scientific Training Day, abstract selected for oral presentation by Fellows Committee.
2015. Honorary presentation for Thesis Award from the Dutch Society for Psychonomics, Egmond aan Zee.
2012. University of Amsterdam, Center for Math and Informatics.
2012. NIMH, Laboratory of Brain and Cognition, Bethesda.
2011. Radboud Universiteit Nijmegen, Donders Discussions *Foundations of Neuroscience*.
2011. University of Amsterdam, Amsterdam Vision Meeting.

PREPRINTS

García Cerdas D, Sartzetaki C, Petersen M, Roig G, Mettes P, **Groen IIA** (*bioRXiv*) BrainACTIV: Identifying visuo-semantic properties driving cortical selectivity using diffusion-based image manipulation. https://doi.org/10.1101/2024.10.29.620889

Müller NM, Scholte HS&, **Groen IIA**& (*bioRXiv*) Spatial sampling of deep neural network features improves encoding models of foveal and peripheral vision in humans. https://doi.org/10.1101/2024.08.05.606515

Brands AM, Oz Z, Vuksic N, Ortiz P, **Groen IIA** (*bioRXiv*) Contrast-dependent response modulation in convolutional neural networks captures behavioral and neural signatures of visual adaptation. https://doi.org/10.1101/2024.07.26.605075

Bartnik CG, Sartzetaki C, Puigseslloses Sanchez A, Molenkamp E, Bommer S, Vuksic N, **Groen IIA** *(bioRXiv*) Distinct representation of locomotive action affordances in human behavior, brains and deep neural networks. https://doi.org/10.1101/2024.05.15.594298

Müller NM, Snoek CGM, **Groen IIA**&, Scholte HS& (*bioRXiv*) Shape-biased learning by thinking inside the box. https://doi.org/10.1101/2024.05.30.595526

Sucholutsky I, Muttenthaler L, Weller A, Peng A, Bobu A, Kim B, Love BC, Grant E, **Groen IIA**, Achterberg J, Tenenbaum JB, Collins KM, Hermann KL, Oktar K, Greff K, Hebart MN, Jacoby N, Zhang Q, Marjieh R, Geirhos R, Chen S, Kornblith S, Rane S, Konkle T, O'Connell TP, Unterthiner T, Lampinen AK, Müller K-R, Toneva M, Griffiths TL (*ArXiv*). Getting aligned on representational alignment. https://arxiv.org/abs/2310.13018

Silson EH&, **Groen IIA**&, Baker CI (*bioRXiv*) Systematic effects of retinotopic biases and category selectivity across human occipitotemporal cortex. https://doi.org/10.1101/2024.11.04.621840

PEER-REVIEWED PUBLICATIONS

Brands AM, Devore S, Devinsky O, Doyle W, Flinker A, Friedman D, Dugan P, Winawer JA, **Groen IIA** (2024). Temporal dynamics of short-term neural adaptation across human visual cortex. *PLoS Comput Biol* 20(5): e1012161. https://doi.org/10.1371/journal.pcbi.1012161

Roefs ECA, Schellekens W, Báez-Yáñez MG, Bhogal AA, **Groen IIA**, van Osch MJP, Siero JCW, Petridou N (2024) The contribution of the vascular architecture and cerebrovascular reactivity to the BOLD signal formation across cortical depth. *Imaging Neuroscience* 2024; 2 1–19. https://doi.org/10.1162/imag_a_00203

Müller NM, Scholte HS[&], **Groen IIA**[&] (2024) Enriching ConvNets with pre-cortical processing enhances alignment with human brain responses. *ICLR 2024 Workshop on Representational Alignment*

Bartnik CG & **Groen IIA**[&] (2024) Human and deep neural network alignment in navigational affordance perception. *ICLR 2024 Workshop on Representational Alignment*

Milne GA, Lisi M, McLean A, Zheng R, **Groen IIA**, Dekker TM (2024) Emergence of perceptual reorganisation from prior knowledge in human development and Convolutional Neural Networks. *iScience* https://doi.org/10.1101/2022.11.21.517321.

Bartnik CG & **Groen IIA** (2024) Visual perception in the human brain: How the brain perceives and understands real-world scenes. *Oxford Research Encyclopedia of Neurosciences (ORE)* https://doi.org/10.1093/acrefore/9780190264086.013.437.

Yuasa K**, Groen IIA**, Piantoni G, Montenegro S, Flinker A, Devore S, Devinsky O, Doyle W, Dugan P, Friedman D, Ramsey N, Petridou N, Winawer JA (2023) Spatial tuning of alpha oscillations in human visual cortex. *eLife* https://doi.org/10.7554/eLife.90387.1

Groen IIA, Piantoni G, Montenegro S, Flinker A, Devore S, Devinsky O, Doyle W, Dugan P, Friedman D, Ramsey N, Petridou N, Winawer JA (2022). Temporal dynamics of neural responses in human visual cortex. *The Journal of Neuroscience* 42(40):7562-7580

van Dijk JA, de Jong MC, Piantoni G, Fracasso A, vanSteensel MJ, **Groen IIA**, Petridou N, Dumoulin SO (2022) Intracranial recordings show evidence of numerosity tuning in human parietal cortex. *PLOS One* 17(8): e0272087

Groen IIA[&], Dekker TA[&], Knapen T[&], Silson EH[&] (2022) Visuospatial coding as ubiquitous scaffolding for human cognition. *Trends in Cognitive Sciences* 26:1, 81-96

Silson EH[&], **Groen IIA**[&], Baker CI (2021) Direct comparison of category and spatial selectivity in human occipitotemporal cortex. *Brain Structure and Function* https://doi.org/10.1101/2021.05.06.442603

Groen IIA[&], Silson EH[&], Pitcher D, Baker CI (2021) Theta-burst TMS of lateral occipital cortex reduces BOLD responses across category-selective areas in ventral temporal cortex. *NeuroImage* 230 (2021) 117790

Gaglianese A, Branco MP, **Groen IIA**, Benson NC, Vansteensel MJ, Murray MM, Petridou N, Ramsey NF (2020) Electrocorticography evidence of tactile motion responses in visual cortices. *Brain Topography,* online July 13, 2020.

Seijdel N, Jahfari S, **Groen IIA**, Scholte HS (2020) Low-level image statistics in natural scenes influence perceptual decision-making. *Scientific Reports* 10, 10573

Holdgraf C, Appelhof S, Bickel S, Bouchard K, D'Ambrosio S, David O, Devinsky O, Dichter B, Flinker A, Foster BL, Gorgolewski KJ, **Groen IIA**, Groppe D, Gunduz A, Hamilton L, Honey CJ, Jas M, Knight R, Lachaux J-P, Lau JC, Lee-Messer C, Lundstrom BR, Miller KJ, Ojemann JG, Oostenveld R, Petridou N, Piantoni G, Pigorini A, Pouratian N, Ramsey NF, Stolk A, Swann NC, Tadel F, Voytek B, Wandell BA, Winawer J, Witaker K, Zehl L & Hermes D (2019) BIDS-iEEG: an extension to the brain imaging data structure (BIDS) specification for human intracranial electrophysiology. *Nature Scientific Data* 6(1), 102

Groen IIA[&], King ML[&], Steel AD, Kravitz DJ, Baker CI (2019) Similarity judgments and cortical visual responses reflect different properties of object and scene categories in naturalistic images. *NeuroImage* 197, 368-382

[&] Authors contributed equally to this manuscript.

Groen IIA[&], Jahfari S[&], Seijdel N, Ghebreab S, Lamme VAF, Scholte HS (2018) Scene complexity modulates degree of feedback activity during object detection in natural scenes. *PLoS Computational Biology* 14(12): e1006690

Bankson BB[&], Hebart MN[&], **Groen IIA**, Baker CI (2018) The temporal evolution of conceptual object representations revealed through models of behavior, semantics and deep neural networks. *NeuroImage* 178, 172-182.

Groen IIA, Greene MR, Baldassano C, Fei-Fei L, Beck DM, Baker CI (2018) Distinct contributions of functional and deep neural network features to scene representation in brain and behavior. *eLife* 2018;7:e32962.

Groen IIA, Silson EH, Baker CI (2017*)* Contributions of low- and high-level properties to neural processing of visual scenes in the human brain. *Philosophical Transactions of the Royal Society B* 372:20160102.

Malcolm GL, **Groen IIA**, Baker CI (2016) Making sense of real-world scenes. *Trends in Cognitive Sciences* 20(11), 843-865.

Harel A, **Groen IIA**, Kravitz DJ, Deouell LY, Baker CI (2016) The temporal dynamics of scene processing: a multi-faceted EEG investigation. *eNeuro,* 10.1523/ENEURO.0139-16.2016.

Silson EH**, Groen IIA**, Kravitz D, Baker CI (2016) Evaluating the correspondence between face-, scene-, and object-selectivity and retinotopic organization within lateral occipitotemporal cortex. *Journal of Vision* 16(6):14, 1-21.

Groen IIA, Ghebreab S, Lamme VAF, Scholte HS (2016) The time course of natural scene perception with reduced attention. *Journal of Neurophysiology* 115:2, 931-946.

Ramakrishnan K, Scholte HS, **Groen IIA**, Smeulders AWM & Ghebreab S (2015) Visual dictionaries as intermediate features in the human brain. *Frontiers in Computational Neuroscience* 8:168.

Ramakrishnan K, **Groen IIA**, Scholte HS, Smeulders AWM, Ghebreab S (2014) Visual dictionaries in the brain: comparing HMAX and BoW. *IEEE International Conference on Multimedia and Expo (ICME),* Chengdu, China.

Groen IIA, Ghebreab S, Prins H, Lamme VAF, Scholte HS (2013) From image statistics to scene gist: evoked activity reveals transformation from low-level natural image structure to scene category. *The Journal of Neuroscience* 33(48): 18814-18824.

Ramakrishnan K, **Groen IIA**, Scholte HS, Smeulders AWM, Ghebreab S (2013) Visual word representation in the brain. In: *3rd NIPS Workshop on Machine Learning and Interpretation in NeuroImaging (MLINI)*, Lake Tahoe, Nevada, USA.

Groen IIA, Ghebreab S, Lamme VAF, Scholte HS (2012) Spatially pooled contrast statistics predict neural and perceptual similarity of naturalistic image categories. *PLoS Computational Biology* 8(10): e1002726.

Groen IIA, Ghebreab S, Lamme VAF, Scholte HS (2012) Low-level contrast statistics are diagnostic of invariance of natural textures. *Frontiers in Computational Neuroscience* 6:34.

Barense MD, **Groen IIA**, Lee ACH, Yeung LK, Brady SM, Gregori M, Kapur N, Bussey TJ, Saksida LM, Henson RNA (2012) Intact memory for irrelevant items impairs perception in amnesia. *Neuron* 75(1):157-67.

Winkel JG, Wijnen J, Danielmeijer C, **Groen IIA**, Derfuss J, Ridderinkhof KR, Forstmann BU (2012) Observed and self-experienced conflict induce similar behavioral and neural adaptation. *Social Neuroscience*, 7:4, 385-397.

Winkel JG, Wijnen JG, Ridderinkhof KR, **Groen IIA**, Derrfuss J, Danielmeier C and Forstmann BU (2009) Your conflict matters to me! Behavioral and neural manifestations of control adjustment after self-experienced and observed decision-conflict. *Frontiers in Human Neuroscience* 3:57.

NON-REFEREED PUBLICATIONS

Groen IIA & Baker CI (2019) Scenes in the human brain: Comparing 2D versus 3D representations. *Neuron* 101(1)*,* 8-10

Groen IIA & van Velzen (2007) Gezocht: Kosmisch Ontwerper ('Wanted: Cosmic Designer'), literary journal *De Gids*, Vol. 02, February.

Ramakrishnan K, **Groen IIA**, Smeulders AWM, Scholte HS, Ghebreab S (bioRxiv) Characterization of temporal dynamics of visual object recognition by convolutional neural networks: role of network depth. https://doi.org/10.1101/178541

CONFERENCE PROCEEDINGS

Aldegheri G, Scholte HS, **Groen IIA** (2024) Assessing the role of inter-object relations in visual cortical responses to natural scenes *European Conference on Visual Perception (ECVP)* [**Oral**].

Brands AM, Oz Z, **Groen IIA** (2024) Divisive normalization captures perceptual and neural interaction effects between temporal adaptation and contrast gain during object recognition. *Cognitive Computational Neuroscience* (CCN) [Poster].

Müller NM, HS Scholte, **Groen IIA** (2024) A single spatial transform improves predictions of neural responses by deep neural network models. *Cognitive Computational Neuroscience* (CCN) [Poster].

Scholte HS, Smidi J, Loke J, Müller NM, **Groen IIA**, van Gerven MAJ (2024) Convolutional neural networks align early in training with neural representations *Cognitive Computational Neuroscience* (CCN) [Poster].

Loke J, Soerensen LKA, **Groen IIA**, HS Scholte (2024) Deep neural networks are predictive of neural data through textures. *Cognitive Computational Neuroscience* (CCN) [Poster].

Scholte HS, Smidi J, Loke J, Müller NM, **Groen IIA**, van Gerven MAJ (2024) Convolutional neural networks align early in training with neural representations *Cognitive Computational Neuroscience* (CCN) [Poster].

Bartnik CG, **Groen IIA** (2024) Unveiling task-dependent action affordance representations: Insights from scene-selective cortex and deep neural networks. *Vision Sciences Society* (VSS) *Annual meeting* [Poster].

Brands AM, Vukšić N, Ortiz P, **Groen IIA** (2024) Revealing effects of nonlinear response properties on visual perception using temporal divisive normalization. *CoSyne 2024* [Poster]

Dietz L, Brands AM, Piantoni G, Montenegro S, Flinker A, Devore S, Devinsky O, Doyle W, Dugan P, Friedman D, Winawer J, **Groen IIA** (2023) Selectivity and temporal dynamics of neural responses in category-selective cortex are associated with differences in spatial tuning. *Society for Neuroscience (SfN)* [Poster]

Müller NM, Scholte HS[&], **Groen IIA**[&] (2023) Ultra-high resolution images improve modeling of neural activity evoked by natural scenes. *Society for Neuroscience (SfN)* [Poster].

Scrivener CL, Zamboni E, **Groen IIA**, Morland AB, Silson EH (2023) Retinotopically informed computational models improve correspondence with responses in scene-selective brain regions. *Society for Neuroscience (SfN)* [Poster]

Muller NM, **Groen IIA**[&], Scholte HS[&] (2023) Pre-Training on high-quality natural image data reduces DCNN texture bias. *Cognitive Computational Neuroscience* (CCN) [Poster]. https://2023.ccneuro.org/proceedings/0000371.pdf

Bartnik CG, **Groen IIA** (2023) Humans and CNNs see differently: Action affordances are represented in scene-selective visual cortex but not CNNs. *Cognitive Computational Neuroscience (CCN)* [**selected for Contributed Talk**] https://2023.ccneuro.org/proceedings/0001311.pdf

Brands AM, Devore S, Devinsky O, Doyle W, Flinker D, Winawer J, **Groen IIA** (2023) Differences in temporal adaptation across the human visual hierarchy are explained by delayed divisive normalization. *Conference on Cognitive Computational Neuroscience (CCN)* [**Poster**] https://2023.ccneuro.org/proceedings/0000097.pdf

Bloem I, **Groen IIA**, Yuasa K, Piantoni G, Montenegro S, Flinker D, Devore S, Devinsky O, Doyle W, Dugan P, Friedman D, Ramsey N, Landy M, Petridou N, Winawer J (2023) An image-computable model of orientation-tuned normalization. *Vision Science Society (VSS) Annual Meeting.*

Brands AM, Devore S, Devinsky O, Doyle W, Flinker D, Winawer J, **Groen IIA** (2022) Neural mechanisms underlying short-term adaptation in human visual cortex. *European Conference on Visual Perception (ECVP)* [**Oral**].

Bartnik CG, **Groen IIA** (2022) Human perception of navigational affordances in real-world environments relies on multiple scene properties. *Vision Sciences Society (VSS) Annual Meeting* [Poster].

Brands AM, Devore S, Devinsky O, Doyle W, Flinker D, Winawer J, **Groen IIA** (2022) Short-term adaptation differences across the human visual cortex during natural image processing. *Vision Sciences Society (VSS) Annual Meeting* [Poster].

Groen IIA, Piantoni G, Montenegro S, Flinker D, Devore S, Devinsky O, Doyle W, Ramsey N, Petridou N, Winawer J (2022) Delayed divisive normalization predicts temporal dynamics of neural responses in human visual cortex. *Vision Sciences Society (VSS) 2022* [**Oral & session moderator**].

Bartnik CG, **Groen IIA** (2021) Human perception of navigational affordances in real-world scenes. *European Conference on Visual Perception (ECVP) 2021* (online) [Poster].

Brands AM, Devore S, Devinsky O, Doyle W, Flinker D, Winawer J, **Groen IIA** (2021) Adaptation of neural responses to naturalistic visual categories in low- and high-level visual cortex. *European Conference on Visual Perception (ECVP) 2021* (online) [Poster].

Groen IIA, Piantoni G, Montenegro S, Flinker D, Devore S, Devinsky O, Doyle W, Ramsey N, Petridou N, Winawer J (2021) Non-linear temporal dynamics of neuronal responses in human visual cortex. *CoSyne 2021* (online) [Poster].

Groen IIA, Piantoni G, Montenegro S, Flinker D, Devore S, Devinsky O, Doyle W, Ramsey N, Petridou N, Winawer J (2020) The temporal dynamics of neuronal responses in human visual cortex. *NeuroMatch 3.0* (online) [**Oral**].

Groen IIA, Piantoni G, Flinker D, Devore S, Devinsky O, Doyle W, Ramsey N, Petridou N, Winawer J (2020) The temporal dynamics of neuronal responses in human visual cortex. *Vision Sciences Society Annual Meeting* (online) [Poster].

Groen IIA, Zhou J, Piantoni G, Hermes D, Flinker D, Devinsky O, Doyle W, Ramsey N, Petridou N, Winawer J (2019) The temporal dynamics of neuronal responses in human visual cortex. *Annual Meeting of the Organization for Human Brain Mapping*, Rome, Italy. [Poster + **Invited Oral**].

Groen IIA, Zhou J, Hermes D, Kay KN, Winawer J (2018) Simulation and recovery of broadband field potentials. *Annual Meeting for the Society of Neuroscience*, San Diego, USA [Poster].

Petridou N, Schellekens W, Zhou J, Benson N, **Groen IIA,** Ramsey N, Winawer J (2018) Extending population receptive fields to new domains. *4th Annual BRAIN Initiative Investigators Meeting*, Bethesda, USA [Poster].

Groen IIA, Silson EH, Baker CI (2017) Consecutive TBS-fMRI on scene-selective cortex reveals non-specific effects in high-level visual cortex. *16th Winter conference of the Dutch Society of Psychonomics (NVP)*, Egmond aan Zee, The Netherlands **[Oral].**

Groen IIA, Greene MR, Baldassano C, Fei-Fei L, Beck DM, Baker CI (2017) Mind the gap: comparing DNN and functional models of scene representation in brain and behavior. *International Conference for Cognitive Neuroscience*, Amsterdam, Netherlands **[Symposium Talk]**

Groen IIA, Greene MR, Baldassano C, Fei-Fei L, Beck DM, Baker CI (2017) Convolutional neural networks best predict representational dissimilarity in scene-selective cortex: comparing computational, object and functional models. *Vision Sciences Society Annual Meeting*, St. Pete's Beach, FL **[Oral]**

Groen IIA, Greene MR, Baldassano C, Fei-Fei L, Beck DM, Baker CI (2017) Convolutional neural networks best predict representational dissimilarity in scene-selective cortex, but not behavior: comparing computational, object and functional models**.** *Workshop on Concepts, Actions and Objects (CAOs),* Rovereto, Italy **[Poster + Award Talk]**

Groen IIA, Greene MR, Baldassano C, Fei-Fei L, Beck DM, Baker CI (2017) Comparing computational, object and functional models of scene representation in the human brain. *Cognitive Neuroscience Society*, San Francisco, CA [Poster]

Groen IIA, Greene MR, Baldassano C, Fei-Fei L, Beck DM, Baker CI (2016) Comparing computational, object and functional models of scene representation in the human brain. *Society for Neuroscience,* San Diego, CA **[Symposium Talk]**

Baker CI, Silson EH, **Groen IIA** (2016) The effect of consecutive TMS-fMRI on scene representations in high-level visual cortex. *Society for Neuroscience,* San Diego, CA [Poster]

Silson EH, **Groen IIA**, Baker CI (2016) The effect of consecutive TMS fMRI on the contralateral preference for scenes within scene-selective occipital place area. *Society for Neuroscience,* San Diego, CA [Poster]

Groen IIA, Silson EH, Baker CI (2015) Differential representation of man-made and natural scenes in scene-selective cortex. *Society for Neuroscience,* Chicago, IL [Poster]

Groen IIA, Silson EH, Baker CI (2015) Differential representation of man-made and natural scenes in scene-selective cortex. *15th Winter conference of the Dutch Society of Psychonomics (NVP)*, Egmond aan Zee, The Netherlands **[Oral].**

Groen IIA, Jahfari S, Lamme VAF, Scholte HS (2014) Selective increase in recurrent processing for object detection in complex natural scenes. *Vision Sciences Society Annual Meeting*, 2015, Naples, FL [Poster]

Groen IIA, Jahfari S, Lamme VAF, Scholte HS (2014) Recurrent processing contributes to natural scene categorization only for scenes of high complexity. *Society for Neuroscience*. Washington DC [Poster]

Groen IIA, Ghebreab S, Lamme VAF, Scholte HS (2014). Neural computation of scene gist with and without attention. *Vision Sciences Society Annual Meeting*, St Pete Beach, FL [Poster]

Groen IIA, Ghebreab S, Lamme VAF, Scholte HS (2013). Two stages in the time-course of scene gist perception. *14th Winter conference of the Dutch Society of Psychonomics (NVP)*, Egmond aan Zee, The Netherlands **[Oral]**

Groen IIA, Ghebreab S, Lamme VAF, Scholte HS (2013). Two stages in the time-course of scene gist perception. *Perception* 42 ECVP Abstract Supplement, page 161, Bremen, Germany **[Oral]**

Groen IIA, Ghebreab S, Lamme VAF, Scholte HS (2013). Neural dissimilarities of scene categories map onto low-level contrast statistics. *Human Brain Mapping*, Seattle, WA [Poster]

Groen IIA, Ghebreab S, Lamme VAF, Scholte HS (2013). Two stages in scene gist perception revealed by evaluating summary statistics with single-image ERPs. *Vision Sciences Society Annual Meeting*, Naples, FL [Poster]

Groen IIA, Prins H, Ghebreab S, Lamme VAF, Scholte HS (2012). Man-made or natural? From image statistics to scene gist via single-trial EEG responses, *Society for Neuroscience*, New Orleans. LA [Poster]

Groen IIA, Prins H, Ghebreab S, Lamme VAF, Scholte HS (2012). Image contrast statistics predict evoked responses to natural scenes and perceived scene naturalness. *Workshop on Concepts, Actions and Objects: Functional and Neural perspectives (CAOs)*, Rovereto, CiMeC, Italy. [Poster]

Groen IIA, Ghebreab S, Lamme VAF, Scholte HS (2012). Image statistics describe both early and late processing of natural scenes. *Annual Meeting of the Association for the Scientific Study of Consciousness (ASSC)*. Brighton, UK. [Poster]

Groen IIA, Ghebreab S, Lamme VAF, Scholte HS (2012). Man-made or natural? From image statistics to scene gist via single-trial EEG responses. *Gordon Research conference on Sensory Coding and the Natural Environment (SNCE)*, Klosterneuburg, Institute for Science and Technology, Austria. [Poster]

Groen IIA, Ghebreab S, Lamme VAF, Scholte HS (2011) Invariance of natural textures is predicted by low-level edge responses. *13th Winter conference of the Dutch Society of Psychonomics (NVP)*, Egmond aan Zee, The Netherlands. **[Oral]**

Groen IIA, Ghebreab S, Lamme VAF, Scholte HS, (2011). Summary statistics of edge information predict categorization of naturalistic images. *2011 Neuroscience Meeting Planner*, Washington DC. Society for Neuroscience. Online. [Poster]

Groen IIA, Ghebreab S, Lamme VAF, Scholte HS, (2011). Summary statistics of edge information predict categorization of naturalistic images. *Perception* 40 ECVP Abstract Supplement, page 18. **[Oral]**

Groen IIA, Ghebreab S, Lamme VAF, Scholte HS (2010). The role of Weibull image statistics in rapid object detection in natural scenes. *J Vis* August 2, 2010 10(7): 992, Naples, Florida [Poster]

Groen IIA, Ghebreab S, Lamme VAF, Scholte HS (2009) The relationship between natural image statistics and object perception *12th Winter conference of the Dutch Society of Psychonomics (NVP)*, Egmond aan Zee, The Netherlands. **[Oral]**

LAB VISIT TALKS

2024. Hebart lab, Justus-Liebig-Universität Giessen, Germany (Dr. Martin Hebart).
2024. Freie Universitat Berlin, Germany (Dr. Radoslaw Cichy) (declined)
2023. University College London, Child Vision Lab (Dr. Tessa Dekker)
2022. Cognitive Psychology Dept, Vrije Universiteit Amsterdam (Dr. Freek van Ede)
2022. Spinoza Neuroimaging Center, Amsterdam (Dr. Tomas Knapen)
2022. Information Retrieval Lab, Informatics Institute, University of Amsterdam (Dr. Andrew Watson).
2018. Columbia University, NY (Dr. Chris Baldassano)
2017. University of Bologna, Department of Psychology, Italy (Dr. Andrea de Cesarei)
2017. University Medical Center Utrecht, The Netherlands (Dr. Natalia Petridou).
2017. Nathan Kline Institute, Orangeburg, NY (Dr. Charles Schroeder).
2017. Columbia University, Laboratory for Intelligent Imaging and Computing (Dr. Paul Sajda).
2013. Stanford University, Stanford Computer Vision lab (Dr. Fei-Fei Li).

2013. Berkeley University, Whitney lab for Perception and Action (Dr. David Whitney).
2013. University of Santa Barbara, Vision and Image Understanding lab (Dr. Miguel Eckstein).
2013. Brown University, Serre Lab (Dr. Thomas Serre).
2012. New York University, Computational Neuroimaging Lab (Dr. David Heeger).
2012. Columbia University, Laboratory for Intelligent Imaging and Computing (Dr. Paul Sajda).
2012. Columbia University, Cognitive Neuroscience and Neuroimaging Laboratory (Dr. Charles Schroeder).
2012. City College of New York, Neural Engineering Group (Dr. Simon Kelly).
2012. Harvard University, Vision Sciences Lab (Dr. George Alvarez).
2011. Princeton University, Hasson Lab (Dr. Uri Hasson).

TEACHING EXPERIENCE and (GUEST-) LECTURES

2021-present. Coordinator and design of core curriculum course *Introduction to Computational Cognitive Neuroscience*, Master Brain and Cognitive Sciences, University of Amsterdam.
2021-present. Coordinator and lecturer *Leren en beslissen*, Bachelor Artificial Intelligence, University of Amsterdam.
2022. Guest lecturer in Amsterdam Brain & Cognition Summerschool *Computations in Consciousness and Perception*.
2020. Guest lecture *Neural Models of Cognitive Processes*, Master Artificial Intelligence, Free University Amsterdam.
2020. Guest lecture *Advanced Neural and Cognitive Modeling*, Master Brain & Cognitive Science, University of Amsterdam.
2011-2013. Instructor and coordinator with course development, *Neurophysiology: Introduction to Electrophysiology and Imaging*, master program Brain and Cognitive Sciences, University of Amsterdam.
2011. Lecture "Explaining rapid natural scene processing" *Vision and Cognition*, master. Rijksuniversiteit Groningen
2011. Lecture "What is EEG?" *Amsterdam University College,* University of Amsterdam.
2012. Supervision of 4-week EEG research project carried out by 3rd year Psychobiology bachelor students, UvA.
2010-2011. Supervision of 8-week research projects carried out by 2nd-year Psychology bachelor students, UvA.

MENTORSHIP EXPERIENCE

2024-now. Co-advisor of one PhD student at Human-aligned Video AI (HAVA) lab at UvA.
2024-now. Primary advisor of one PhD student at Informatics at UvA (ELLIS programme).
2022-2023. Co-advisor of one post-doc at Psychology Department & Informatics Institute at UvA.
2022-now. Co-advisor of one PhD candidate at Psychology Department & Informatics Institute at UvA.
2020-now. Primary advisor of two PhD candidates at Informatics Institute at UvA.
2020-2021. Academic mentor for female students in undergraduate and graduate programs within the Faculty of Science, through the Women in the Faculty Network (WiF) at the UvA.
2015-2017. Co-supervision of three Post-baccelaureates in SLaP lab at NIH.
2015. Supervision of Undergraduate student from the USD participating in the NIH Undergraduate Scholarship Program for students from disadvantaged backgrounds.
2012-2014. Supervision of three master students and one bachelor student at Department of Psychology, UvA.

OUTREACH and SERVICE

2025. Co-chair or *Conference on Computational Neuroscience 2025* (CCN, www.ccneuro.org).
2024. Rising Co-chair or *Conference on Computational Neuroscience 2024* (CCN, www.ccneuro.org).
2024. Co-organizer of 2-week *Neuro-AI Summer School* at UvA, highlighting research at the interface of computational cognitive neuroscience and AI, sponsored by ELLIS www.neuro-ai.eu.
2022. Interview for *Society for Neuroscience* NeuroCurrent podcast on computational modelling of temporal dynamics of neural responses in human visual cortex. Also available on Spotify and Apple Podcasts.
2023. Organizer of *Alice & Eve 2023*, an Equity, Diversity and Inclusion event highlighting women in informatics taking place at LAB42, UvA. https://alice-and-eve.github.io/2023/.
2022. Interview for Dutch radio NPO1 podcast "Kennis & Co" on mind-reading with AI.
2022. Interviews for New Scientist and Folia Magazine on modelling neural responses in human visual cortex.
2021. Teacher member of the Program Committee of the Master AI, Bachelor AI and minor AI at Informatics Institute, UvA.
2021. Keynote speaker for the UvA's Informatics Student Association (VIA) annual conference "AwesomeIT".
2021. Interview for MacGillavry booklet on receiving Fellowship Award.
2020. Selection Committee Data Science Thesis Award (https://amsterdamdatascience.nl/events/thesis-awards/).
2015. Judge for the Undergraduate Short Term Research Experience Program for Underrepresented Persons (STEP-UP) Research Symposium (NIDDK/NIH).
2012. Public talk *Computer vision meets cognitive neuroscience* at the public opening at the University of Amsterdam.
2012. Interview for magazine *Talent* for parents with children with intellectual giftedness.
2012. Interview on scientific integrity in cognitive neuroscience research for magazine *MindOpen*.

PhD COMMITTEE MEMBERSHIP

2024. Antonis Krasakis (University of Amsterdam). Promotor: Evangelos Kanoulas
2024. Sanne van den Berg (CWI/NIN). Promotores: Pieter Roelfsema, Sander Bohté
2024. Samuel Noorman (University of Amsterdam). Promotor: Simon van Gaal
2024. Matthias Brucklacher (University of Amsterdam). Promotor: Cyriel Pennartz
2024. Marco Aqil (VU Amsterdam). Promotor: Serge Dumoulin
2024. Mid-term thesis committee Tim Maniquet (U Leuven). Promotor: Hans op de Beeck.
2023. Marion Durteste (CNRS Paris). Promotor: Angelo Arleo Fontaine
2023. Shuo Chen (University of Amsterdam). Promotores: Cees Snoek & Pascal Mettes
2023. Giacomo Aldegheri (Radboud University Nijmegen). Promotor: Marius Peelen.
2022. Marisha Manahova (Radboud University Nijmegen). Promotores: Floris de Lange & Eelke Spaak.
2022. Laura Geurts (Radboud University Nijmegen). Promotor: Janneke Jehee.
2022. Lynn Sorensen (University of Amsterdam). Promotores: Steven Scholte, Sande Bohté & Heleen Slagter.
2021. Noor Seijdel (University of Amsterdam). Promotores: Steven Scholte & Edward de Haan.
2021. Andrea Bertana (Radboud University Nijmegen). Promotor: Janneke Jehee.

EDITORIAL CONTRIBUTIONS

2024 - present. *eLife* (Reviewing Editor)
2020 - present. *Journal of Cognitive Neuroscience* (Consulting Editor)
2018 - 2020. *Frontiers in Emotion Neuroscience* (Reviewing Editor*)*
2017 - 2020. *Frontiers in Human Science* (Reviewing Editor*)*

REVIEWING

2024. Reviewer for NeurIPS Workshop on Neuro-AI.
2024. Reviewer for NeurIPS Workshop on Behavioral RL.
2024. Reviewer for ICLR Representational Alignment workshop (Re-Align).
2023, 2024. Reviewer for CoSyne.
2023. External expert reviewer for ERC Advanced Grant.
2022. Reviewer for NeurIPS workshop Shared Visual Representations in Humans and Machine Intelligence (SVRHM).
2022. External expert reviewer for ERC Starting Grant (declined because of COI).
2021. External expert reviewer for The Marsden Fund Council for Full Research grant proposal (NZ).
2021. External expert reviewer for European Research Council (ERC) Starting Grant.
2020. External expert reviewer for Icelandic Research Fund grant proposal.
2020, 2022. External expert reviewer for USA National Science Foundation (NSF) grant proposal.
2018, 2019, 2023, 2024. Abstract reviewing for Cognitive Computational Neuroscience Conference (CCN).
2013-present, ad-hoc reviewer for:

Nature Neuroscience, Nature Human Behavior, Nature Communications, Current Biology, Journal of Neuroscience, PNAS, PNAS Nexus, Cerebral Cortex, PLoS Computational Biology, eLife, eNeuro, Nature Scientific Reports, Science Advances, NeuroImage, Imaging Neuroscience, Journal of Cognitive Neuroscience, European Journal of Neuroscience, Journal of Neurophysiology, Journal of Vision, Vision Research, Cognitive Science, Psychophysiology, Quarterly Journal of Experimental Psychology, PLoS ONE, PeerJ, Cognition, Cognitive Science, Cortex, Memory and Cognition, Frontiers, Acta Psychologica, IEEE Access, Neural Networks, Neural Computation.

PROFESSIONAL MEMBERSHIPS

- ELLIS Society (https://ellis.eu)
- Vision Sciences Society (https://www.visionsciences.org)
- Amsterdam Brain and Cognition (https://abc.uva.nl)
- Amsterdam Data Science Network (https://amsterdamdatascience.nl)
- Dutch Society for Brain and Cognition (https://societyforbrainandcognition.nl/)

ACADEMIC REFERENCES

- **Dr. Chris Baker**
  Laboratory of Brain and Cognition, Section on Learning and Plasticity (Chief)
  National Institutes of Health

Building 10, Room 3N228
10 Center Drive, MSC 1240
Bethesda, MD 20892, USA
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- **Dr. Jonathan Winawer**
Department of Psychology, Center for Neuroscience
New York University
6 Washington Place, Room 960
New York, NY 10003, USA
jonathan.winawer@nyu.edu

- **Dr. H. Steven Scholte**
Programmagroep Brain and Cognition, Faculteit der Maatschappij- en Gedragswetenschappen
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