

Curriculum vitae

• PERSONAL INFORMATION

Date of birth: 18-07-1965;
Nationality: Dutch;
Orcid ID: 0000-0002-1134-8665
URL: <http://www.mbfys.ru.nl/staff/r.vanee/>

• EDUCATION

1988-1991 MSc, Physics Utrecht University, Dept Medical and Physiological Physics,
Graduation: May 27, 1991;
1991-1994 PhD, Physics Utrecht University, Helmholtz Institute,
Graduation March 13, 1995.

• CURRENT POSITION(S)

2010-> Full Professor Experimental Psychology, Leuven
2010-> Principal Researcher Philips, Eindhoven
2011-> Full Professor BioPhysics Radboud University Nijmegen, Chair: Innovation and
Entrepreneurship in Life Sciences

• PREVIOUS POSITIONS

1995-1999 Postdoc UC **Berkeley**, USA
1999-2001 Postdoc Massachusetts Institute of Technology (**MIT**), USA
2002-2010 Assoc prof Physics Dept, Utrecht University

• TEACHING ACTIVITIES

2001 → Physics Signal Processing; Physics FM, Physics/NeuroScience; Biophysics of Perception
and Action; NeuroBiophysics; System Review NeuroScience; Future of Health;
NeuroScience Systems; Advanced perception;
2005 → Guest teacher in multiple perception/neuroscience courses throughout the Netherlands and
Belgium;.

Advising

1993-> MSc students (11 from Utrecht, 8 in Leuven, 2 from UK, 2 from USA, and 12 from places
in Europe);
1996-> PhD students (6 from Utrecht, 2 from Nijmegen, 3 from Leuven, 2 from Europe, 1 from
New Zealand, and 4 from USA);
2000-> Postdoctoral students (3 from Utrecht, 1 from Nijmegen, 4 from Leuven, and 2 from
Europe);
2001-> Tutor of now in all 44 Bachelor students.

• MAJOR CONTRIBUTION TO EARLY CAREERS OF EXCELLENT RESEARCHERS

I feel fortunate that I have been able to contribute to the early careers of the researchers in my group. All of the excellent graduate students and postdocs have ended up at top-universities in Europe (Paris, Cambridge, Oxford etc), the US (Harvard, MIT, Berkeley, Vanderbilt, McGill etc), or Australia (Sydney, UNSW). For all of the researchers who wished to stay in science I have been able to find a university position. For a number of them I helped in getting fixed assistant professor positions. For those who wished to work in industry I have been able to help to accommodate a position.

• COMMISSIONS, ORGANISATION and INSTITUTIONAL RESPONSIBILITIES

Developing physics curriculum; I have provided scientific contents and I have participated in the organisation of an international conference/workshop called Science on Stage to develop education materials for modern international physics curriculum for high schools in Europe.

Thesis reviewing Regularly in foreign commissions to assess the quality of a graduate thesis and to ask questions at the defence. The most recent was in Oxford with Prof. Andrew Parker.

Grant proposal reviewing Regularly for NWO, the British Royal Society, American NSF and NATO, Israelian, Poland, and Japanese Government, and others ...

Consultant for Hewlett Packard (USA, Oregon; Printer division) and IllusionWorks (USA, California)

Consultant for Gerson Lehrman Group, Healthcare Council

Other academic activities

Elected board member of the Netherlands Soc Physics (NNV).

Elected President of the National Dutch Ass. for Biophysics and Biomedical Engineering (450 members)
Elected board member of the Youth Netherlands National Academy of Sciences (KNAW).
Elected Board member of the National Council for Technical Sciences, Mathematics, Informatics, Physics, Astronomy en Chemistry (TWINS at KNAW)
National Council for Physics & Astronomy (KNAW); in council from 2005 to 2008.
Invited member in the advisory board of the National Dutch Ass. for Physics (NNV)
National Platform for Physics (NPN) Active participation to elevate the level of physics education in high school; the joined work has resulted in development of new physics curriculum (NiNa)
Beta Ambassador National forum and council for Physics and Beta-related topics in the Netherlands

• **MAJOR COLLABORATIONS**

Current (publications in progress)

Prof Denham, multisensory perception, Plymouth University, UK;

Prof Winkler, multisensory perception, Budapest University, Hungary;

Prof Morrone, Prism adaptation, Pisa University, Italy;

Prof Gillebert, Stroke Rehab, NeuroPsychology, University of Leuven, Belgium;

Prof Lafosse, Stroke Rehab, RevArte, University of Leuven, Belgium;

As requested, publications from international collaboration (I did not include the publications with the psychology group at Leuven University (+10) because I have a honorary affiliation-position in Leuven);

Below, I listed the colleague, not myself, to save space:

Australia:

Alais & Parker (2010). Attending to auditory signals slows visual alternations. **Vis Res**, 50, 929-935.

Parker & Alais (2009). Multisensory congruency: mechanism, attentional control. **J Neurosci**, 29, 11641-49.

Alais (2008). Retinotopic and non-retinotopic stimulus encoding. **J of Vision**, 8(5):17, 1-10.

Brussel/Oxford:

Reinoso, Valasco & Spence (2016). Music Influences Taste Ratings in Beer. **Front Psychology**, 7, 636-46.

Reinoso & Spence (2017). Music modulates the perceived creaminess and bitterness. **Appetite**, 108, 383-90

Reinoso, Steenhaut & Spence (2016). Tune that Beer! Listening to the pitch of Beers. **Beverages**, 2, 31, 1-9.

Japan:

Kogo (2015). Neural mechanisms of figure-ground organization: Border-ownership, competition and perceptual switching. **Oxford Handbook of Perceptual Organization** (pp.352–72). Oxford Univ Press.

Cambridge:

Kourtzi (2010). Perceptual memory increases amplitude of neural response. **J of Vision**, 10, 343-251.

MIT:

Anderson (2001). Motion direction, speed, and orientation in binocular matching. **Nature**, 410, 690-694.

Richards (2002). A planar and a volumetric test for stereoanomaly. **Perception**, 31, 51-64.

Berkeley:

Adams & Banks (2001). Adaptation to distortions in vision. **Nature Neuroscience**, 4, 1063-1064.

Banks & Backus (1999). An analysis of stereoscopic slant contrast. **Perception**, 28, 1121-1145.

Backus, Banks & Crowell (1999). Horizontal, vertical disparity, and slant perception. **Vis Res**, 39, 114370.

ETH, Zürich:

Miendlarzewska & Cannistraci (2013). Working memory load attenuates emotional enhancement in recognition memory. **Frontiers in Psychology: Emotion Science**, 4:112, 1-10.

VanderBilt:

Pearson & Blake (2011). The Role of Frontal Areas in Bistable Perception. **J of NeuroSci**, 31(28):10293-301.

London:

Walsh (2010). Perceptual bias and perceptual memory. **Journal of Neuroscience**, 30, 760 –766.

Riga:

Krumina (2005). Voluntarily controlled bi-stable slant perception. **Proc Royal Society London**, 272, 141–48.

Glasgow:

Mamassian & Adams (2003). Bayesian modelling of cue interaction: bi-stability in stereoscopic slant perception. **J Optical Society of America**, 20, 1398-1406.

All ongoing and submitted grants and funding of the PI (Funding ID)**On-going Grants**

None of these grants have overlap with the current ERC proposal. In the course of the projects for these grants I have conducted pilot experiments to test feasibility of my current proposal ideas.

<i>Project Title</i>	<i>Funding source</i>	<i>Amount (Euros)</i>	<i>Period</i>	<i>Role of the PI</i>	<i>Relation to current ERC proposal</i>
Constructing connectivity	EU	50k	2017 - 6 months	Advisor	None; Design potential tools
Stroke and VR	FWO	250k	2015 - 4 yr	PhD Advisor	None; Test acceptance of virtual reality tools for elderly
NextGenVis	EU	250k part of consortium	2014 - 5 yr	PhD Advisor	None; Fundamental attention study
HealthPAC	EU	200k part of consortium	2013 - 5 yr	PhD Advisor	None; Fundamental attention study
CogNovo	EU	300k part of consortium	2012 - 5 yr	PhD Advisor	None; Fundamental attention study
ABC	EU	50k part of consortium	2012 - 5 yr	Advisor	None; Fundamental attention study
Multisensory stimulation	Leuven University	1M	2012 - 7 yr	Group lead	None; Fundamental attention study

Applications

<i>Project Title</i>	<i>Funding source</i>	<i>Amount (Euros)</i>	<i>Period</i>	<i>Role of the PI</i>	<i>Relation to current ERC proposal</i>
none					

Ten years track-record

See <http://www.mbfys.ru.nl/staff/r.vanee/> for publication list with 110 full papers in peer reviewed journals. H-index = 39 if both 'vanEe' and 'van Ee' are taken into account.

• 10 BEST PUBLICATIONS OF LAST 10 YRS

- P. Moors, G. Hasselman, J. Wagemans & **R. van Ee** (2017). *Continuous flash suppression: stimulus fractionation rather than integration*. *Trends in Cognitive Sciences*, In press. Impact 15.
- R. van Ee**, S. Van de Cruys, L.J.M. Schlangen & B.N.S. Vlaskamp (2016). *Circadian-Time Sickness: Time-of-day cue-conflicts directly affect health*. *Trends in Neurosciences*, 39, 738-749. Impact 12.
- M. Vergeer, J. Wagemans & **R. van Ee** (2016). *Training of binocular rivalry suppression suggests stimulus-specific plasticity in monocular and binocular visual areas*. *Scientific Reports Nature*, 6, 25753, doi: 10.1038/srep25753. Impact 6.
- M.C. de Jong, R.J.M. Hendriks, M.J. Vansteensel, M. Raemaekers, F.A.J. Verstraten, N.F. Ramsey, C.J. Erkelens, F.S.S. Leijten & **R. van Ee** (2016). *Intracranial recordings of occipital cortex responses to illusory visual events*. *Journal of Neuroscience*, 36(23), 6297– 6311. Impact 9.
- T. Borra, H. Versnel, C. Kemner, A.J. van Opstal & **R. van Ee** (2013). *An octave effect in auditory attention*. *PNAS*, 110, 15225-15230. Impact 14.
- R. van Ee** (2011). *Percept-switch nucleation in binocular rivalry reveals local adaptation characteristics of early visual processing*. *Journal of Vision*, 11(2):13, 1–12. Impact 3.
- R. van Ee** & C.J. Erkelens (2010). *Stereo-vision: Head-centric coding of retinal signals*. *Current Biology*, 20, R567-568. Impact 12.
- R. van Ee**, J.J.A. van Boxtel, A.L. Parker & D. Alais (2009). *Multisensory congruency as a mechanism for attentional control over perceptual selection*. *Journal of Neuroscience*, 29, 11641-11649. Impact 9.
- R. van Ee** (2009). *Stochastic variations in sensory awareness are driven by noisy neuronal adaptation: Evidence from serial correlations in perceptual bistability*. *Journal of the Optical Society of America A*, 26, 2612-2622. Impact 2.
- G.J. Brouwer & **R. van Ee** (2007). *Visual cortex allows prediction of perceptual states during ambiguous structure-from-motion*. *Journal of Neuroscience*, 27, 1015-1023. Impact 9.

Most important interview related to scientific work:

R. van Ee (2009). Cyclops Mirror. *Science*, 326, 777.

Most important commentary article:

L. Sanders (2016). Out-of-sync body clock causes more woes than sleepiness. *Science News*, Oct 2016.

• FELLOWSHIPS, GRANTS AND AWARDS

- 2017 Recipient of FWO Grant (50k) with artist J. Smarsch to design a multisensory rehab tool.
- 2014 Recipient of FWO Grant (200k) for project on visual neglect rehabilitation
- 2014 Co-Awarded Horizon 2020 EU Grant (ITN) entitled "NextGenVis" (99% score)
- 2013 Co-Awarded FP7 EU Grant (Marie Curie ITN) entitled "HealthPAC".
- 2013 Co-Awarded FP7 EU Grant (Marie Curie ITN) entitled "CogNovo".
- 2011 Co-Awarded FP7 EU Grant (Marie Curie ITN) entitled "ABC".
- 2010 Recipient of BOFZAP-Senior Research Grant (2M€) to build group at KU Leuven
- 2008 Recipient of scholarship (60k€) as the (only) national couple (with artist Bradley Pitts) of science & arts at the KNAW 200yr celebration. The project is named EYE MEETS I.
- 2004 High Potential, Utrecht University (1.5 M€, shared with v. Wezel)
- 2001 VIDI VernieuwingsImpuls Grant (680 k€)
- 1999 Fellow of National Academy of Sciences KNAW (300 k€; AkademieOnderzoeker)
- 1997 TALENT Stipend, Foundation for Life Sciences (50 k€)
- 1996 TALENT Stipend, NWO (25 k€)

• INVITED PRESENTATIONS

- 2017 Invited TV commentary in news flash for RTL4 (national television), Editie NL
- 2017 Invited TV interview for VPRO (NPO1, national television) and TopDoks (NPO3, to be broadcasted in the fall of 2017)
- 2017 Radio broadcast: 3 interviews about taste and multisensory perception.
- 2017 News papers: 3 invited articles on publication about taste and multisensory perception.

- 2011 Guest of the week in Faros, a scientific National Radio Program
2007 Interview and Documentary for a National TV Program (Klokhuis) March 28, 2007 and 13 mei 2009.
2007 National Radio Interview in Hoe?Zo! (1 hour), October 18
2007→ Invited to be on the cover of
Trends in NeuroSciences
J. NeuroScience
Vision Research (twice)
2007→ Invited talks: too many to list

• **INVITED ORGANISATIONAL WORK**

- Elected President of the National Dutch Ass. for Biophysics and Biomedical Engineering (450 members)
Elected board member of the Youth Netherlands National Academy of Sciences (KNAW).
Elected Board member of the National Council for Technical Sciences, Mathematics, Informatics, Physics, Astronomy en Chemistry (TWINS at KNAW)
Elected board member of the Netherlands Soc Physics (NNV).
Elected in National Platform for Physics (NPN) Active participation to elevate the level of physics education in high school; the joined work has resulted in development of new physics curriculum (NiNa)
Elected as Beta Ambassador National forum and council for Physics and Beta-related topics in the Netherlands

• **CONFERENCE ORGANISATION**

As a board member of the Young National Academy of Science I have organised many scientific meetings. The biggest conference for which I was responsible for the scientific contents, reviewing, abstract etc. was European Conference on Visual Perception, 2008 in Utrecht with 800 attendants. Leuven University is candidate for organising the same conference in 2019, in which I will participate and plan to be responsible for scientific contents and reviewing etc.

• **MAJOR CONTRIBUTION TO EARLY CAREERS OF EXCELLENT RESEARCHERS**

See page 10 of this proposal.

• **LEADERSHIP IN INDUSTRIAL INNOVATION OR DESIGN**

Since 2010, when my collaboration with Philips started, I have protected my scientific ideas and applications. Because it takes about two to three years to get a patent granted internationally, the list below (Fig 6) contains only submission older than 2015. I have also newer submission under review with several patent offices, but those are not in the list because they are not granted yet and may become declined.

Patent title	Submission date	ID #
Google-Glass-like device for presenting motion illusion to adjust the brain's central pacemaker to a shifted light-dark cycle	2015-07-23	2015ID00059
System and method for automatic prediction and prevention of migraine	2015-03-31	2014ID03499 ; 2015ID02070
Muscle and nerves rehabilitation using congruent multi-sensory stimulation	2014-06-03	2013ID02930
Audio-vestibular-tactile rhythmic-stimulation pillow to shorten sleep-onset latency for tinnitus (ear-ringing) sufferers	2013-08-28	2013ID01338 ; 2014ID00026
Multi-sensory like button system and method for real life objects	2013-04-12	2012ID02029
Light-induced switchable color patterns	2013-04-09	2012ID02904 ; 2013ID03503
A method and system to enhance participation in classrooms using local exposure to congruent light and sound	2013-03-26	2011ID08397
Context-specific relaxation stimuli for ambient experience	2012-04-16	2011ID00838
Multisensory priming for exercising	2012-03-29	2011ID01907 ; 2011ID02647 ; 2011ID09060
ID 668682: Medication management system with priming feature	2011-10-11	2011ID00705
Multi-sensorial distraction for in the MR scanner room	2010-11-25	2010ID01108

Fig 6: Granted patent applications.