

Dr. Ir. Peter Vangorp

Curriculum vitæ

Edge Hill University
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Employment

- September 2016 – **Lecturer**, *Edge Hill University, Department of Computer Science, Ormskirk, United Kingdom.*
supervisor Prof. Dr. Nik Bessis
- May 2016–2016 **Research Officer**, *Bangor University, School of Computer Science, Bangor, United Kingdom.*
Supported by EU FP7 project RASimAs: Regional Anaesthesia Simulator and Assistant
supervisor Dr. Franck P. Vidal
- November 2015 – March 2016 **Research Officer**, *Bangor University, School of Computer Science, Bangor, United Kingdom.*
Supported by EU FP7 project RASimAs: Regional Anaesthesia Simulator and Assistant
supervisor Dr. Franck P. Vidal
- June 2015–2015 **Software R&D Engineer**, *Astral Dynamics Cyf, Deiniolen, United Kingdom.*
Supported by Natural Resources Wales
- September 2014 – May 2015 **Research Officer**, *Bangor University, School of Computer Science, Bangor, United Kingdom.*
Supported by the High Performance Computing Wales Research and Innovation Fund
supervisor Dr. Rafał K. Mantiuk
- November 2012 – May 2015 **Post-doctoral Researcher**, *Max Planck Institute for Informatics, Department of Computer Graphics, Saarbrücken, Germany.*
Supported by a Max Planck Society post-doctoral fellowship
supervisors Prof. Dr. Karol Myszkowski and Prof. Dr. Hans-Peter Seidel
- November 2011 – October 2012 **Post-doctoral Researcher**, *Justus Liebig University Gießen, Department of General and Experimental Psychology, Gießen, Germany.*
Supported by DFG Reinhardt-Koselleck-Projekt “Wahrnehmung von Materialeigenschaften”
supervisor Dr. Roland W. Fleming
- October 2009 – October 2011 **Post-doctoral Researcher**, *Inria Sophia-Antipolis - Méditerranée, REVES Research Team, Sophia-Antipolis, France.*
Supported by an Inria post-doctoral fellowship and ARC NIEVE (Collaborative Research Initiative on Navigation and Interfaces in Emotional Virtual Environments)
supervisor Dr. George Drettakis
- October 2005 – September 2009 **Research Assistant / Ph.D. Student**, *Katholieke Universiteit Leuven, Department of Computer Science, Heverlee, Belgium.*
Partially supported by grant CREA/08/017 from the Research Fund K.U.Leuven
supervisor Prof. Dr. Ir. Philip Dutré

Education

- 2005–2009 **Ph.D. in Engineering – Computer Science**, *Katholieke Universiteit Leuven*, Belgium.
thesis title *Human Visual Perception of Materials in Realistic Computer Graphics*
supervisor Prof. Dr. Ir. Philip Dutré
- 2002–2005 **MSc in Engineering – Computer Science**, *Katholieke Universiteit Leuven*, Belgium.
thesis title *Multispectral Rendering*
supervisor Prof. Dr. Ir. Philip Dutré
- 2000–2002 **BSc in Engineering**, *Katholieke Universiteit Leuven*, Belgium.

Publications

h-index: 7 (source: Google Scholar)

JCR 2-year Impact Factors for the year of publication and Google Scholar citation counts as of June 2016 are listed where available.

Journal Articles (9)

MUKHERJEE, R., DEBATTISTA, K., BASHFORD-ROGERS, T., VANGORP, P., MANTIUK, R. K., BESSA, M., WATERFIELD, B., AND CHALMERS, A., 2016. Objective and subjective evaluation of High Dynamic Range video compression. *Signal Processing: Image Communication*, 47, 426–437. doi:10.1016/j.image.2016.08.001. [Impact Factor: 1.602].

VANGORP, P., MYSZKOWSKI, K., GRAF, E. W., AND MANTIUK, R. K., 2015. A model of local adaptation. *ACM Transactions on Graphics (Proc. ACM SIGGRAPH Asia 2015)*, 34, 6, 166:1–13. doi:10.1145/2816795.2818086. [Impact Factor: 4.218, Citations: 2].

KELLNHOFER, P., RITSCHER, T., VANGORP, P., MYSZKOWSKI, K., AND SEIDEL, H.-P., 2014. Stereo day-for-night: Retargeting disparity for scotopic vision. *ACM Transactions on Applied Perception*, 11, 3, 15:1–17. doi:10.1145/2644813. Special issue for best papers of ACM Symposium on Applied Perception 2014. [Impact Factor: 0.652, Citations: 4].

VANGORP, P., RICHARDT, C., COOPER, E. A., CHAURASIA, G., BANKS, M. S., AND DRETTAKIS, G., 2013. Perception of perspective distortions in image-based rendering. *ACM Transactions on Graphics (Proc. ACM SIGGRAPH 2013)*, 32, 4, 58:1–12. doi:10.1145/2461912.2461971. [Impact Factor: 3.725, Citations: 11].

CIRIO, G., VANGORP, P., CHAPOULIE, E., MARCHAL, M., LÉCUYER, A., AND DRETTAKIS, G., 2012. Walking in a cube: Novel metaphors for safely navigating large virtual environments in restricted real workspaces. *IEEE Transactions on Visualization and Computer Graphics (Proc. IEEE Virtual Reality 2012)*, 18, 4, 546–554. doi:10.1109/TVCG.2012.60. [Impact Factor: 1.898, Citations: 18].

VANGORP, P., CHAURASIA, G., LAFFONT, P.-Y., FLEMING, R. W., AND DRETTAKIS, G., 2011. Perception of visual artifacts in image-based rendering of façades. *Computer Graphics Forum (Proc. Eurographics Symposium on Rendering 2011)*, 30, 4, 1241–1250. doi:10.1111/j.1467-8659.2011.01983.x. [Impact Factor: 1.636, Citations: 16].

BÉNARD, P., LAGAE, A., VANGORP, P., LEFEBVRE, S., DRETTAKIS, G., AND THOLLOT, J., 2010. A dynamic noise primitive for coherent stylization. *Computer Graphics Forum (Proc. Eurographics Symposium on Rendering 2010)*, 29, 4, 1497–1506. doi:10.1145/1837026.1837079. [Impact Factor: 1.476, Citations: 26].

LAGAE, A., VANGORP, P., LENAERTS, T., AND DUTRÉ, P., 2010. Procedural isotropic stochastic textures by example. *Computers & Graphics*, 34, 4, 312–321. doi:10.1016/j.cag.2010.05.004. [Impact Factor: 0.735, Citations: 19].

VANGORP, P., LAURIJSEN, J., AND DUTRÉ, P., 2007. The influence of shape on the perception of material reflectance. *ACM Transactions on Graphics (Proc. ACM SIGGRAPH 2007)*, 26, 3, 77:1–9. doi:10.1145/1275808.1276473. [Impact Factor: 3.413, Citations: 91].

Conference Papers (3)

VANGORP, P., MANTIUK, R. K., BAZYLUK, B., MYSZKOWSKI, K., MANTIUK, R., WATT, S. J., AND SEIDEL, H.-P., 2014. Depth from HDR: Depth induction or increased realism? In *Proc. ACM Symposium on Applied Perception 2014*, 71–78. doi:10.1145/2628257.2628258. [Citations: 1].

CABRAL, M., VANGORP, P., CHAURASIA, G., CHAPOULIE, E., HACHET, M., AND DRETTAKIS, G., 2011. A multimode immersive conceptual design system for architectural modeling and lighting. In *Proc. IEEE 3D User Interfaces 2011*, 15–18. doi:10.1109/3DUI.2011.5759211. [Citations: 2].

VANGORP, P. AND DUTRÉ, P., 2008. Shape-dependent gloss correction. In *Proc. Applied Perception in Graphics and Visualization 2008*, 123–130. doi:10.1145/1394281.1394304. [Citations: 16].

Others

BARLA, P., VANGORP, P., ZUBIAGA, C. J., AND FLEMING, R. W., 2016. Specular kurtosis and the perception of hazy gloss. *Journal of Vision (Proc. Vision Sciences Society 2016)*, 16, 12, 942. doi:10.1167/16.12.942. Talk.

EDWARDS, M. R., VANGORP, P., AND JOHN, N. W., 2015. Towards a high resolution grip measurement device for orthopaedics. In *Proc. IEEE Virtual Reality 2015*, 325–326. doi:10.1109/VR.2015.7223427. Research demonstration.

VANGORP, P., MYSZKOWSKI, K., GRAF, E. W., AND MANTIUK, R. K., 2015. An empirical model for local luminance adaptation in the fovea. *Perception (Proc. European Conference on Visual Perception 2015)*, 44, 1 (suppl.), 98. doi:10.1177/0301006615598674. Oral presentation.

VANGORP, P. AND FLEMING, R. W., 2012. Glossiness of layered materials. *Journal of Vision (Proc. Vision Sciences Society 2012)*, 12, 9, 874. doi:10.1167/12.9.874. Poster.

BÉNARD, P., LAGAE, A., VANGORP, P., LEFEBVRE, S., DRETTAKIS, G., AND THOLLOT, J., 2010. NPR Gabor noise for coherent stylization. *ACM SIGGRAPH 2010*, 40. doi:10.1145/1837026.1837079. Talk. [Citations: 1].

LAGAE, A., VANGORP, P., LENAERTS, T., AND DUTRÉ, P., 2009. Isotropic stochastic procedural textures by example. Technical Report CW 546, Dept. Computer Science, KU Leuven, Belgium. [Citations: 5].

VANGORP, P., 2009. *Human Visual Perception of Materials in Realistic Computer Graphics*. Ph.D. thesis, KU Leuven, Belgium. [Citations: 2].

VANGORP, P., CONDON, T. S., FERWERDA, J. A., BALA, K., SCHOUKENS, R., AND DUTRÉ, P., 2009. Visual equivalence in dynamic scenes. Technical Report CW 557, Dept. Computer Science, KU Leuven, Belgium. [Citations: 7].

VANGORP, P., DUMONT, O., LENAERTS, T., AND DUTRÉ, P., 2006. A perceptual heuristic for shadow computation in photo-realistic images. *ACM SIGGRAPH 2006*, 102. doi:10.1145/1179849.1179977. Sketch. [Citations: 4].

VANGORP, P. AND YSKOUT, K., 2005. *Multispectral Rendering*. Master's thesis, Dept. Computer Science, KU Leuven, Belgium.

Peer Reviewing

program	ACM Symposium on Applied Perception 2011, 2015–2016
committee	International Conference on 3D Web Technology (Web3D) 2012–2013
reviewer	ACM SIGGRAPH (ACM Transactions on Graphics) 2010, 2013–2016 ACM SIGCHI (ACM Transactions on Computer-Human Interactions) 2013 ACM Transactions on Applied Perception 2011, 2013–2016 Vision Research 2014 Eurographics Conference (Computer Graphics Forum) 2008, 2011, 2014, 2016 Eurographics Symposium on Rendering (Computer Graphics Forum) 2014–2015 Computer Graphics Forum 2014 IEEE Transactions on Visualization and Computer Graphics 2008, 2014, 2016 IEEE Computer Graphics & Applications 2016 High Performance Graphics 2015 Computers & Graphics 2015 Art & Perception 2014 IET Image Processing 2014–2015 Eurographics/IEEE-VGTC Symposium on Visualization (Eurovis) 2008 IEEE International Conference on Multimedia & Expo 2008

Teaching and Supervision

Designing Perceptual Experiments. Lecturer. COST Action IC-1005 High Dynamic Range Imaging Training School. Brno, Czech Republic. (March 2015)

Computer Vision. Guest lecturer and teaching assistant. Master course in Computer Science and Creative Technologies. Bangor University, United Kingdom. With Dr. Rafał K. Mantiuk (Fall and Spring Semester 2014–2015)

Perception for Computer Graphics. Advanced lecture course in Master Visual Computing, Computer and Communication Technology, Computer Science, and Media Informatics. University of Saarland, Germany. With Prof. Dr. Karol Myszkowski and Dr. Tobias Ritschel (Winter Semester 2013–2014)

Realistic Image Synthesis. Teaching assistant. University of Saarland, Germany (Summer Semester 2013, 2014)

Perception. Guest lecture in Selected Topics in Multimedia. University of Hasselt, Belgium (Fall 2007)

Ray Tracing and Global Illumination. Refresher lecture for Master Computer Graphics. Katholieke Universiteit Leuven, Belgium (Fall 2006, 2007)

Introduction to Computer Graphics. Teaching assistant, elective course in Master Computer Science. Katholieke Universiteit Leuven, Belgium (Spring 2006, 2007, 2008, Fall 2008)

Co-supervision of 10 MSc theses (2006–2009), 6 MSc internships (2010–2011), and a research assistant (2013–2014)

Invited Talks

- 14 October 2015 A Model of Local Adaptation, VMG Seminar Series, Bangor University, United Kingdom
- 12 November 2012 Perception of Slant for Image-Based Rendering, Nice, France
- 8 December 2011 Perceived Angles in Textures of Façades, VCL Lunch Talks, UC Berkeley, CA, USA
- 25 November 2011 Perception of Slant for Image-Based Rendering, Nice, France
- 25 November 2011 Materials in Stereo, Nice, France
- 11 June 2009 Visual Equivalence in Dynamic Scenes, FMSCG 2009, Diepenbeek, Belgium
- 3 June 2008 Shape-Dependent Gloss Correction, FMSCG 2008, Heverlee, Belgium
- 27 July 2007 The Influence of Shape on the Perception of Material Reflectance (presented by P. Dutré), APGV 2007, Tübingen, Germany
- 12 July 2007 The Influence of Shape on the Perception of Material Reflectance, FMSCG 2007, Diepenbeek, Belgium
- 13 July 2006 A Perceptual Heuristic for Shadow Computation in Photo-Realistic Images, FMSCG 2006, Heverlee, Belgium

Other Measures of Esteem

- awards Top 5 paper award at ACM Symposium on Applied Perception 2014
- fellowships Inria postdoctoral fellowship 2009–2010
Max Planck postdoctoral fellowship 2012–2014
- organizing Assisted in Eurographics Conference 2009 paper sort (unofficial)
- memberships ACM SIGGRAPH member, since 2007
- media Early work on navigation and interaction in immersive virtual environments [Cirio et al. 2012] was covered by French regional TV station France 3
- misc. Contributed an image to Held et al., Current Biology 22, 5 (February 2012)
Also featured as the cover image of Informatik Spektrum 36, 4 (August 2013)

Software Development

- programming Expert on modern C++; Proficient in C, Java, Python, Shell scripting; Experience with parallel programming, HPC clusters, MPI, and OpenMP
- 3D graphics Expert on physically based ray tracing, image-based rendering, stereo 3D, virtual reality; Experience with real-time rendering using OpenGL, GLSL and Cg shader programming, X3D and H3D haptics
- web dev. Experience with HTML and JavaScript
- scientific Expert on Matlab and PsychToolbox; \LaTeX

Languages

- Dutch native
- English fluent
- French basic
- German basic
- Welsh notions