

Curriculum Vitae

Katja Dörschner

CONTACT INFORMATION

(1) Department of Psychology
Justus-Liebig-University Giessen
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(4) National Magnetic Resonance Research Center (UMRAM)
Cyberpark, Cyberplaza C-blok, Kat 2
Bilkent University, 06800 Ankara, Turkey

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EDUCATION

2006	Ph.D. Experimental Psychology, New York University, New York, USA Thesis: <i>Perception of Surface Color in Complex Three-Dimensional Scenes</i> Advisor: Laurence T. Maloney
2005	M.A. Psychology, New York University, New York, USA
2002	B.A. Psychology, University of Rhode Island, Rhode Island, USA

RESEARCH INTERESTS

Biological and Machine Vision, Imaging Genomics

FELLOWSHIPS/ AWARDS

2014	Sofia Kovalevskaja Award, Alexander von Humboldt Foundation Germany, 2014,(1.628 Mio Euro for 5 years)
2013	Turkish Academy of Sciences Outstanding Young Scientist Award (TUBA GEBIP), (approx. 7000 Euro yearly, for 4 years)
2012	The Scientific and Technological Research Council of Turkey Young Scientist Encouragement Award (TUBITAK Tesvik Odulu),(approx 7000 Euro)
2009	TUBITAK 7th Framework Participation Incentive Award
2006	Deans Dissertation Fellowship (declined), New York University, USA
2005	Sokol Travel/ Research Award for Predoctoral Students in the Sciences, New York University, USA
2005	Katzell Summer Fellowship, New York University, USA
2002-2006	McCracken Doctoral Fellowship, New York University, USA
2002	URI Presidents Award for Student Excellence, University of Rhode Island, USA
2001	Outstanding Contributions to Psychology Senior Award, University of Rhode Island, USA

¹I am currently best reached under this address

FUNDING

Current

- 2012-2015 TUBITAK 1001 Research Grant, Assessing structural and functional architecture of the human brain through investigating influences of genetically rooted central nervous system disorders, PI (until 12/2014, currently Co-PI). Budget: 316,000 YTL (approximately 150,000 Euro)
- 2013-2017 EU FP7 People Program: Marie Curie Initial Training Network 2012, PRISM: Perceptual Representation of Illumination, Shape and Materials (Full Partner), Budget: 226,000 Euro, Total ITN Budget: 3,011,566 Euro,
- 2012-2015 E-Rare JTC 2011 - European Research Projects on Rare Diseases, Nosology and molecular diagnosis of the degenerative recessive ataxias - Euro-SCAR, Member of Partner 4 group (together with 7 researchers), Total Budget: 917,100 Euro, Partner 4 Budget: 81,000 Euro

Advised

- 2014-2017 BIDEB 2232 Post doctoral integration fellowship 21514107-232.01-9150. The role of object motion and surface material in 3D shape perception. Fellow: Dicle Dovengioglu (Postdoc). Budget: 25,000 YTL, Advisor :KD

Past

- 2009-2013 European Commission Marie Curie International Reintegration Grant, Visual Perception of Surface Material Properties - Computational and fMRI investigations of spatio-temporal cues to perceived shininess, PI. Budget: 100,000 Euro.
- 2009-2012 TUBITAK (The Scientific and Technological Research Council of Turkey) 1001 Research Grant, Analysis of the influence of novel neurodevelopmental movement disorder mutations on the functional and structural organization of the visual and motor systems, Co-PI. Budget: 360,000 YTL (approximately 225,000 US Dollars)
- 2009-2012 TUBITAK 1001 Research Grant, Assessing neural activity and functional connectivity in human cortex associated with contextual influences on visual perception, Co-PI. Budget: 330,000 YTL (approximately 210,000 US Dollars)
- 2007 UMN Center for Magnetic Resonance Research - Neuroscience Core Center/Biotechnology Research Resource Grant funded by NIH Neuroscience Blueprint Interdisciplinary Core Grant (P30 NS057091) Awarded: 30hrs scan time (Siemens 3T), Neural Processing of Surface Material Properties, PI. Project Duration: 6 month

Past advised

- 2013-2014 TUBITAK 2209 National/International Research Projects Fellowship Programme for Undergraduate Students-A (2013-1). Fellow: Begum Irkdas (Undergraduate) Budget: 2,000 YTL, Advisor KD

PROFESSIONAL APPOINTMENTS

- 2014-current Research Group Leader, Department of Psychology, Justus Liebig University Giessen, Germany
- 2014-current Visiting Scholar, Department of Cognitive Science, University of California San Diego, USA
- 2008-current Assistant Professor, Department of Psychology, and National Research Center for Magnetic Resonance (UMRAM), Bilkent University, Ankara Turkey

RESEARCH EXPERIENCE

- 2006-2007 Post-doctoral Researcher, Department of Psychology, University of Minnesota, USA
- 2002-2006 Research Assistant, Department of Psychology, New York University, USA
- 2002 Junior Research Scientist, Department of Psychology, New York University, USA
- 2000-2002 Research Assistant, Department of Cognitive and Linguistic Sciences, Brown University, USA

TEACHING EXPERIENCE

National Magnetic Resonance Research Center (UMRAM), Ankara, Turkey

2010 Instructor, Origins of BOLD, fMRI Analysis, DTI, fMRI workshop at the National Magnetic Resonance Research Center

Bilkent University, Ankara, Turkey

Undergraduate

2009 & 11 Instructor, Introduction to Psychology.
2008, 09 & 12 Instructor, Lab in Stat. Methods: Signal Detection, Simulation and Analysis.
2008-13 Instructor, Sensation and Perception.
2008-13 Instructor, Learning and Memory.
2008-12 Instructor, Research Methods in Psychology.
2011-14 Instructor, Neuropsychology.
2012-14 Statistics and Research Methods in Psychology.

Graduate

2008 & 10 Instructor, Learning: Theory and Application.

New York University, New York, USA

2005 Teaching assistant, Simulation and Data Analysis. Graduate course.
2004 Teaching assistant, Intermediate Statistics. Graduate Course.
2003 Teaching assistant, Intermediate Statistics. Graduate course.
2003 Teaching assistant, Cognitive Psychology. Undergraduate course.

Rhode Island School of Design, Providence, USA

2001 Instructor, International Certificate Program for New Media.

PROFESSIONAL EXPERIENCE

1998-2000 Multimedia Designer, Fraunhofer Center for Research in Computer Graphics, Providence, USA
1997-1998 Multimedia Designer, Zentrum Graphischer Datenverarbeitung, Rostock, Germany
1994-1997 Graphic Designer (Berufsausbildung), Graphik Design Schule, Anklam, Germany

PROFESSIONAL ACTIVITIES

10/2015 Co-organizer of PRISM 4 (<http://prism-network.eu/events/prism4-perceptual-representation-illumination-shape-and-materials>) a workshop on material perception in Ankara in October 6-10, 2014
2010 Co-organizer of the 1st UMRAM National fMRI workshop.
2008-present Co-director of the Computational and Biological Vision Group at Bilkent University, Ankara, Turkey.
2007 Organization of the 6th International Radiance and HDR Scientific Workshop. <http://www.dtc.umn.edu/cgi-bin/seminars/symposia/radiance.php>

PROFESSIONAL SERVICES

Journal Editor: Scientific Reports (Nature Publishing Group)

Journal review: Journal of Vision, Experimental Psychology, i-Perception, Neuroimage, PLoS Computational Biology, PLoS One, Current Biology, Frontiers in Perception Science, Vision Research

Book chapter review: The MIT Press

Conference review: 1st. German-Turkish Neuroscience meeting, 2014, Berlin
<http://www.cbs.mpg.de/events/workshops/1st-t-g-sym-14>

PROFESSIONAL AFFILIATIONS

Vision Sciences Society 2003-current
Cognitive Neuroscience Society 2009-2010
Society for Neuroscience 2011-2014
IEEE Computer Society 2009-2014
Turkish Society of Magnetic Resonance (TMRD) 2009-current

INVITED TALKS

- 11/2014 Keynote Lecture: 'Neuronale Grundlagen der Materialwahrnehmung', (cortical mechanisms in material perception), Sofja Kovalevskaja Award Ceremony and workshop 10-12.11/2014, Berlin, Germany
- 05/2014 12. National Neuroscience Congress, Computational approaches in understanding visual object appearance, Istanbul, Turkey
- 11/2013 UNESCO World philosophy day, 'Linking Genes, Brain and Mind', Bilkent University, Ankara, Turkey
- 10/2013 PRISM workshop, "Specular Shape from Motion", Bordeaux, France, <http://prism-network.eu/events/prism2-science-light-shade>
- 02/2013 1. METU Neuroscience Days, "Motion, Shape and Material Qualities", Middle Eastern Technical University, Ankara, Turkey
- 12/2012 University of Giessen, Department of Psychology, Giessen, Germany
- 07/2012 International Summerschool and Workshop on Brain dynamics, Institute of Theoretical and Applied Physics (ITAP) Marmaris, Turkey
- 02/2012 Pisa Vision Lab, Pisa, Italy
- 06/2011 Material Perception Workshop, University of Giessen, Schloss Rauschholzhausen, Germany
- 04/2011 Center for Mind/Brain Sciences (CIMEC), Rovereto, Italy
- 03/2011 Bilkent University Library Lunch-time series: 'Anna Karenina & DNA'
- 11/2009 ESF Exploratory Workshop on Qualities in Perception Science, Rovereto, Italy
- 11/2009 Middle Eastern Technical University, Cognitive Science Colloquium, Ankara, Turkey
- 08/2009 Max Plank Institute for Biological Cybernetics, Tuebingen, Germany
- 06/2009 Technical University Delft, Delft, Netherlands
- 10/2008 International School for Advanced Studies (SISSA), Trieste, Italy
- 04/2008 RETINA Vision and Learning Group, Bilkent University, Ankara, Turkey

GUEST LECTURE

- 2012 Department of Molecular Biology and Genetics. Seminar: From Molecules to Brain function: The Role of Motion in Surface Material Perception.
- 2008 Department of Physics, Bilkent University. Introduction to Visual Neuroscience. PHYS 120.

PUBLICATIONS

Book Chapter

- 1 Dörschner, K. (2013). *Motion and object appearance*. In L. Albertazzi (Ed.), *The Wiley-Blackwell Handbook of Experimental Phenomenology; Visual Perception of Shape, Space and Appearance*. Wiley - Blackwell, pp. 223–242, doi: 10.1002/9781118329016.ch9
- 2 Maloney, L. T., Gerhard, H. E., Boyaci, H., & Doerschner, K. (2010). *Surface color perception and light field estimation in 3D scenes*. In L. Harris & M. Jenkins (Eds.), *Vision in 3D environments* (pp. 65-88). Cambridge, UK: Cambridge University Press.

Articles

- 1 Kam, T.E., Mannion, D. , Lee, S.W., Doerschner, K., Kersten, D. (Under Review). Human visual cortical responses to specular and matte motion flows.

- 2 Dövcencioglu, D. N., Wijntjes, M. W. A., Ben-Shahar, O., Doerschner, K., (Accepted). Effects of reflectance and object motion in estimating 3D structure. *Vision Research*.
- 3 Yilmaz, O., Doerschner, K., (2014). *Detection and localization of specular surfaces using image motion cues*, *Machine Vision and Applications*, Volume 25, Issue 5, pp 1333-1349.
- 4 Akin, B., Ozdem, C., Eroglu, S., Taslak Keskin, D., Fang, F., Doerschner, K., Kersten, D., Boyaci H. (2014). *Attention modulates neuronal correlates of interhemispheric integration and global motion perception*, *Journal of Vision*, 27, vol. 14, no. 12, article 30.
- 5 Doerschner, K., Yilmaz, O., Kucukoglu, Fleming, R. (2013) *Effects of 3D Shape and Surface Reflectance on Perceived Rotation Axis*, *Journal of Vision*, 13(11):8, pp.1-23, doi: 10.1167/13.11.8
- 6 Oguz, K. K., Temucin, E., Gocmen, R., Has, A.C., Dolgun, A., Doerschner, K., Alikasifoglu, M. (2013) *Assessment of Whole Brain White Matter by DTI in Autosomal Recessive Spastic Ataxia of Charlevoix- Saguenay*, *AJNR*, 34: 1952-1957, doi: 10.3174/ajnr.A3488
- 7 Oguz, K. K., Sanverdi, E., Temucin, C., Turk, S., Haliloglu G., Doerschner, K., (2013) *Tract-Based Spatial Statistics of Diffusion Tensor Imaging in Hereditary Spastic Paraplegia with Thin Corpus Callosum Reveals Widespread White Matter Abnormality*, *Diagnostic and Interventional Radiology*, 19(3):181-6. doi: 10.5152/dir.2013.046.
- 8 Wijntes, M., Doerschner, K., Kucukoglu, G., Pont, S., (2012) *Relative flattening between velvet and matte 3D shapes: evidence for similar shape-from-shading computations*. *Journal of Vision*, **12**(1)2, 1-11, <http://journalofvision.org/12/1/2> doi:10.1167/12.1.2.
- 9 Doerschner, K., Fleming, R., Yilmaz, O., Schrater, P., Hartung, B., Kersten, D., (2011) *Visual Motion and the Perception of Surface Material*. *Current Biology* 21(23), 2010-2016; doi:10.1016/j.cub.2011.10.036
- 10 Gulsuner, S., Tekinay, A.B., Doerschner K., Boyaci, H., Bilguvar, K., Unal, H., Ors, A., Atalar, E., Basak, N., Topaloglu, H., Tan, M., Tan, U., Murat Gunel, M. Ozcelik, T., (2011) *Homozygosity mapping and targeted genomic sequencing reveal the gene responsible for cerebellar hypoplasia and quadrupedal locomotion in a consanguineous kindred*. *Genome Research* 21(12), 1995-2003; doi: 10.1101/gr.126110.111
- 11 Barak, T. , Kwan, K.Y. , Louvi, A., Demirbilek, V., Saygi, S., Tysz, B., Choi, M., Boyaci, H., Doerschner, K., et al. (2011). *Recessive LAMC3 mutations cause malformations of occipital cortical development*. *Nature Genetics* 43(9), 590-594; doi:10.1038/ng.836
- 12 Doerschner, K., Kersten, D., Schrater, P., (2011) *Rapid Classification of Specular and Diffuse Reflection from Image Velocities*. *Pattern Recognition*, 44(9), 1874-1884 <http://dx.doi.org/10.1016/j.patcog.2010.09.007>
- 13 Doerschner, K., Boyaci, H., Maloney, L.T. (2010). *Perceived Glossiness in High Dynamic Range Scenes*. *Journal of Vision*, **10**(9):11, 1-11, <http://journalofvision.org/10/9/11/>
- 14 Doerschner, K., Boyaci, H., Maloney, L.T. (2010). *Estimating the glossiness transfer function induced by illumination change and testing its transitivity*. *Journal of Vision*, **10**(4):8, 1-9, <http://journalofvision.org/10/4/8/>
- 15 Doerschner, K., Boyaci, H., Maloney, L.T. (2007). *Testing limits on matte surface color perception in three-dimensional scenes with complex light fields*. *Vision Research*, **47**, 3409-3423. <http://dx.doi.org/10.1016/j.visres.2007.09.020>
- 16 Boyaci, H., Doerschner, K., Snyder, J., and Maloney, L.T. (2006). *Surface Color Perception in Three-Dimensional Scenes*. *Visual Neuroscience*, **23**, 311-321. <http://dx.doi.org/10.1017/S0952523806233431>
- 17 Schultz, S., Doerschner, K., and Maloney, L. T. (2006). *Color constancy and hue scaling*. *Journal of Vision*, 6, 1102-1116. <http://journalofvision.org/6/10/10/>

- 18 Boyaci, H., Doerschner, K., and Maloney, L. T. (2006). *Cues to an equivalent lighting model*. Journal of Vision, **6**, 106-118. doi:10.1167/6.2.2
- 19 Snyder, J. L., Doerschner, K., and Maloney, L. T. (2005). *Illumination estimation in three-dimensional scenes with and without specular cues*. Journal of Vision, **5**(10), 863-87. <http://journalofvision.org/5/10/8>
- 20 Boyaci, H., Doerschner, K., and Maloney, L. T. (2004). *Perceived surface color in binocularly-viewed scenes with two light sources differing in chromaticity*. Journal of Vision, **4**, 664-679. doi:10.1167/4.9.1
- 21 Doerschner, K., Boyaci, H., and Maloney, L. T. (2004). *Human observers compensate for secondary illumination originating in nearby chromatic surfaces*. Journal of Vision, **4**, 92-105. doi:10.1167/4.2.3

Proceedings

- 1 Zang, D., Schrater, P., and Doerschner, K. (2010). *Object Rigidity and Reflectivity Identification Based on Motion Analysis*. International Conference on Image Processing (ICIP), Hong Kong September 26-29, 2010. doi:10.1109/ICIP.2010.5652288
- 2 Doerschner, K., Kersten, D., and Schrater, P. (2009). *Rapid Classification of Surface Reflectance from Image Velocities*. In Proceedings of the 13th international Conference on Computer Analysis of Images and Patterns (Munster, Germany, September 02 - 04, 2009). X. Jiang and N. Petkov, Eds. Lecture Notes In Computer Science, vol. 5702. Springer-Verlag, Berlin, Heidelberg, 856-864. http://dx.doi.org/10.1007/978-3-642-03767-2_104
- 3 Zang, D., Doerschner, K., and Schrater, P. R. (2009). *Rapid Inference of Object Rigidity and Reflectance Using Optic Flow*. In Proceedings of the 13th international Conference on Computer Analysis of Images and Patterns (Munster, Germany, September 02 - 04, 2009). X. Jiang and N. Petkov, Eds. Lecture Notes In Computer Science, vol. 5702. Springer-Verlag, Berlin, Heidelberg, 881-888. http://dx.doi.org/10.1007/978-3-642-03767-2_107
- 4 Maloney, L.T., Boyaci, H., Doerschner, K. (2005). *Surface color perception as an inverse problem in biological vision*. Computational Imaging III, edited by Charles A. Bouman, Eric L. Miller, Proceedings of SPIE-IS&T Electronic Imaging, SPIE Vol. 5674. doi:10.1117/12.598463

Conference Abstracts

- 1 Urgen, B. Demirayak, P. Ustun, F., Doerschner, K. *Visual distraction in a patient with abnormal occipital gyration - an eyetracking study*, submitted to the Annual Meeting of the Vision Science Society 2015
- 2 Dövençioğlu, D. N., Wijntjes, M. W. A., Ben-Shahar, O., Doerschner, K., *Effects of reflectance and object motion in estimating 3D structure*. Accepted for presentation at the Annual Meeting of the Vision Science Society (VSS), Naples, USA, May 2014.
- 3 Vota, R.M., Wijntjes, M. W.A., Dvencio?lu, D., Ben-Shahar, O., Katja Drschner, *3D shape perception from static and dynamic specular reflections*, Workshop on the science of experiential and qualitative spaces: surfaces, December 2-3, 2014, Rovereto, Italy
- 4 Doerschner, K., Dövençioğlu, D., Ben-Shahar, O., Wijntjes, M.W.A., *Effects of surface reflectance on 3D shape estimation in dynamic scenes*, ECVP, August 24-28, 2014 Belgrade, Serbia
- 5 Boyaci, P., Gilani, I., Urgen, B.M., Ustun, F.S., Topac, Y., Oguz, K.K., Boyaci, H., Doerschner, K., *Effect of LAMC3 Mutation on White Matter Architecture: a Diffusion Tensor Imaging (DTI) study*. Annual Meeting of the Organization for Human Brain Mapping, Hamburg, Germany, June 8-12, 2014.
- 6 Ustun, F.S., Boyaci, P., Gilani, I., Urgen, B.M., Topac, Y., Boyaci, H., Doerschner, K., *Effects of LAMC3 mutation on default mode network: A resting state fMRI analysis*. Annual Meeting of the Organization for Human Brain Mapping, Hamburg, Germany, June 8-12, 2014.
- 7 Urgen, B.M., Boyaci, P., Ustun, F.S., Gilani, I., Topac, Y., Oguz, K.K., Boyaci, H., Doerschner, K., *Morphometric Analysis of the Effects of LAMC3 Mutation on Cortical Structure*. Annual Meeting of the Organization for Human Brain Mapping, Hamburg, Germany, June 8-12, 2014.

- 8 Doerschner, K., Fleming, R., Yilmaz, O., *Perceived Rotation Axis for Specular, Textured, Uniform and Silhouette Objects*. Perception 42, ECVP Abstract Supplement, page 208, doi:10.1068/v130707, 2013
- 9 Camalan, H., Jain, A., Zaidi, Q. and Doerschner, K., *Identification of Surface Reflectance from Motion Cues in the Fovea and Periphery*. Perception, 42, ECVP Abstract Supplement, page 212, doi:10.1068/v130638, 2013
- 10 Gilani, I., Boyaci, P., Boyaci, H., Doerschner, K. *Dynamic topographic connectivity profile: Application to connectivity patterns in the human basal ganglia*, 43rd Annual Meeting of the Society for Neuroscience, San Diego, USA, November 9-13, 2013
- 11 Gilani, I., Boyaci, P., Boyaci, H., Doerschner, K. *Optimization of Multiband Multislice GE-EPI at 3T Using 12-Channel Head Coil for High-Resolution Whole-Brain fMRI*, TMRD Annual Conference, Ankara, Turkey 2013
- 12 Gilani, I., Boyaci, P., Boyaci, H., Doerschner, K. *Whole-Brain and Basal Ganglia Resting State Networks Using Multiband Multislice GE-EPI Sequence*, 2nd International Summer School and Workshop on Brain Dynamics: Connectivity & Cognition, Marmaris, Turkey 2013, <http://itap-tthv.org/braindynamics2013>
- 13 Gilani, I., Boyaci, P., Boyaci, H., Doerschner, K. *Multilevel Multiresolution Independent Component Analysis for Whole-Brain and Basal Ganglia Resting State Networks*, TMRD Annual Conference, Ankara, Turkey 2013
- 14 Kam, T. E., Mannion, D., Lee, S-W., Doerschner, K. and Kersten, D., *An fMRI Study of Cortical Responses for Reflectance-specific Image Motion*. Journal of Vision, 13(9), p.203, doi: 10.1167/13.9.203
- 15 Jain, A., Doerschner, K., and Zaidi, Q. *Identification of Nonrigid 3D Shapes from Motion Cues in the Fovea and Periphery*. Journal of Vision, 13(9), p.264, doi: 10.1167/13.9.264
- 16 Dörschner, K., and Yilmaz, O., *A motion feature - based algorithm for the detection of specular objects in natural scenes*. Perception41ECVPAbstract Supplement, page 242, <http://www.perceptionweb.com/abstract.cgi?id=v120462>
- 17 Kam, T. E., Kersten, D., and Doerschner, K. *Visual adaptation to reflectance-specific image motion*. The Annual Meeting of the Vision Science Society, Naples, Florida, May 2012
- 18 Oguz, K. K., Gocmen, R., Turk, S., Haliloglu, G., Doerschner, K., *White matter abnormalities in autosomal recessive spastic ataxia of Charlevoix-Saguenay (ARSACS) as revealed by DTI measurements*, Annual meeting of the American Society for Neuroradiology, April12-16, 2012, Washington DC
- 19 Oguz, K. K., Sanverdi, E., Temucin, C., Turk, S., Haliloglu G., Doerschner, K., *Tract-Based Spatial Statistics of Diffusion Tensor Imaging in Hereditary Spastic Paraparesia with Thin Corpus Callosum*, Annual meeting of the American Society for Neuroradiology, April12-16, 2012, Washington DC
- 20 Doerschner, K., Ozcelik, T., Gunel, M., Serap, S., and Boyaci, H. *Retinotopy and white matter integrity in a patient with occipital pachygyria*, Annual meeting of the Society for Neuroscience, November 12-16, 2011, Washington DC
- 21 Boyaci, H., Ors, A., Boyaci, P., Ozcelik, T., Uyusal, H., and Doerschner, K., *Structural and functional analysis of brains of patients with congenital Mirror Movement Disorder*, Annual meeting of the Society for Neuroscience, November 12-16, 2011, Washington DC
- 22 Ors, A., Abaci Turk, E., Urgen, B., Boyaci, H, and Doerschner, K., *iMRG ile Duyu Korteksinin Islevsel Haritalamasi*, 16. Yillik Toplantisi, Turk Manyetik Rezonans Dernegi, 19-21 Mayıs, 2011
- 23 Kucukoglu G., Gokcay, D., Doerschner, K., *Investigating High-Level Object Recognition in LOC - Does material perception influence object perception?*, Material Perception Workshop, June 1-5, 2011, Schloss Rauischholzhausen, Germany
- 24 Yilmaz, O., Gevrekci, M., Boyaci, H. and Doerschner, K., *Difuzyon Tensor Goruntulemede Superozunurluk*, 16. Yillik Toplantisi, Turk Manyetik Rezonans Dernegi, 19-21 Mayıs, 2011

- 25 Doerschner, K., Fleming, R., Schrater, P. Kersten, D., and Yilmaz, O., *Three novel motion cues to surface reflectance*. Perception 40, ECVF Abstract Supplement, page 102, <http://www.perceptionweb.com/abstract.cgi?id=v110365>
- 26 Yilmaz, O., Kucukoglu, G., Fleming, R. and Doerschner, K. *Structure-from-Motion predicts misperceived rotation axis for specular material surfaces*. Perception 40, ECVF Abstract Supplement, page 64, <http://www.perceptionweb.com/abs>
- 27 Erten, B., Mustafaoglu, N., Boyaci, H. and Doerschner, K., *Visual perceptual asymmetries can be modified via visual field deprivation in adult humans*. Perception 40, ECVF Abstract Supplement, page 166, <http://www.perceptionweb.com/abstract.cgi?id=v110480>
- 28 Ors, A., Doerschner, K., Gulsuner, S., Uysal, H., Bilgen, R., Ozcelik, T., and Boyaci, H. (2011). Dogumsal Ayna Hareketi Bozuklugu (AHB) Hastaliginda Beynin Fonksiyonel ve Morfolojik Analizleri. 10. Ulusal Sinirbilimleri Kongresi'nde, Istanbul, Turkiye, 9-12 Nisan, 2011
- 29 Boyaci, H., Doerschner, K., Eroglu, S., Fang, F., Kersten, D., Ozdem, C., Taslak, D. (2010). *Perception of global form modulates motion responses in human early visual cortex*. Annual meeting of the Society for Neuroscience (SfN), November 2010, San Diego, CA, USA.
- 30 Kucukoglu, G., Fleming, R., and Doerschner, K. (2010). *Effects of Shape and Surface Material on Perceived Object Rotation Axis*. [Abstract]. Journal of Vision, **10**(7):58, 58a. The Annual Meeting of the Vision Science Society, Naples, Florida, May 2010. <http://journalofvision.org/10/7/58/>
- 31 Wijntjes, M.W.A., Doerschner, K., Kucukoglu, G., and Pont, P.C. (2010). *What velvet teaches us about 3D shape perception*. [Abstract]. Journal of Vision, **10**(7):1227. The Annual Meeting of the Vision Science Society, Naples, Florida, May 2009. <http://journalofvision.org/10/7/1227/>
- 32 Doerschner, K., Boyaci, H., and Olman, C. A. (2009). *Functional properties of V1 neurons coding for luminance histogram skew*. European Society for Magnetic Resonance in Medicine and Biology, 26th Annual Scientific Meeting, Antalya, Turkey, October 1-3, 2009.
- 33 Oliver, R.T., MacIntyre, L.A., Doerschner, K., Maloney, L.T., and Brainard, D.H. (2009). *Interaction between stimulus depth and color appearance: in search of large effects*. Optical Society of America Fall Vision meeting, September 2009, Seattle, USA
- 34 Doerschner K., Wijntjes M.W.A., Kucukoglu G., and Pont S.C., (2009). *Effects of surface material on perceived 3-D shape: comparing velvet and matte reflectances*. Perception 38, ECVF Abstract Supplement, p. 29
- 35 Doerschner, K., Zang, D., Kersten, D., and Schrater, P. (2009). *Cooperative computation of shape and material from motion*. [Abstract]. Journal of Vision, **9**(8):51, 51a. The Annual Meeting of the Vision Science Society, Naples, Florida, May 2009. <http://journalofvision.org/9/8/51/>
- 36 Olman, C., Boyaci, H., Schumacher, J., Fang, F., and Doerschner, K. (2009). *Receptive field properties of V1 neurons coding for luminance histogram skew* [Abstract]. Journal of Vision, **9**(8):774, 774a. The Annual Meeting of the Vision Science Society, Naples, Florida, May 2009. <http://journalofvision.org/9/8/774/>.
- 37 Boyaci, H., Doerschner, K., Murray, S. O. (2009). *Shape-dependence of a size illusion explained by spatial mapping in V1* [Abstract]. Journal of Vision, **9**(8):38, 38a. The Annual Meeting of the Vision Science Society, Naples, Florida, May 2009. <http://journalofvision.org/9/8/38/>.
- 38 Olman, C., Boyaci, H., Fang, F., Doerschner, K. (2008). *V1 responses to different types of luminance histogram contrast* [Abstract]. Journal of Vision, **8**(6):345, 345a. The Annual Meeting of the Vision Science Society, Naples, Florida, May 2008. <http://journalofvision.org/8/6/345/>
- 39 Doerschner, K., Kersten, D., and Schrater, P. (2008). *Analysis of shape-dependent specular motion - predicting shiny and matte appearance*. [Abstract]. Journal of Vision, **8**(6):594, 594a. The Annual Meeting of the Vision Science Society, Naples, Florida, May 2008. <http://www.journalofvision.org/8/6/594/>

- 40 Doerschner, K., Schrater, P., and Kersten, D. (2007). Perceived Shininess and Rigidity - Measurements of Shape-Dependent Specular Flow of Rotating Objects, 6th International Radiance Radiance and HDR Scientific Workshop, Minneapolis, MN, October 2007.
- 41 Doerschner, K., and Kersten, D. (2007). Perceived rigidity of rotating specular superellipsoids under natural and not-so-natural illuminations, [Abstract]. *Journal of Vision*, **7**(9):838, 838a. The Annual Meeting of the Vision Science Society, Naples, Florida, May 2007. <http://journalofvision.org/7/9/838/>
- 42 Maloney, L. T., Doerschner, K., and Brainard, D. H. (2007). Color constancy in 3D scenes: contrasting illumination-estimation and heuristic models, [Abstract]. *Journal of Vision*, **7**(9):458, 458a. The Annual Meeting of the Vision Science Society, Naples, Florida, May 2007. <http://journalofvision.org/7/9/458/>
- 43 Doerschner, K., and Maloney, L. T. (2006). Lightness perception in scenes with motion-based shading cues to the spatial distribution of illumination, [Abstract]. *Journal of Vision*, **6**(6):711, 711a. The Annual Meeting of the Vision Science Society, Naples, Florida, May 2006. <http://journalofvision.org/6/6/711/>
- 44 Maloney, L. T., Boyaci, H., Doerschner, K., and Snyder, J. L. (2006). *Surface color perception in three-dimensional scenes*. Color Vision Symposium, Tagung experimentell arbeitender Psychologen: TeaP2006, Mainz, Germany, March, 2006.
- 45 Doerschner, K., Boyaci, H., Maloney, L. T., (2005). *Spherical harmonic representation of illumination in complex, 3D scenes*. Perception **34** ECVF Abstract Supplement. European Conference on Visual Perception, A Coruna, Spain, August 2005. <http://www.perceptionweb.com/ecvp05/0411.html>
- 46 Maloney, L. T., Boyaci, H., Doerschner, K., (2005). *Representing Spatially and Chromatically Varying Illumination Using Spherical Harmonics in Human Vision* [Abstract]. *Journal of Vision*, **5**(8):786, 786a. The Annual Meeting of the Vision Sciences Society, Sarasota, Florida, May 2005. <http://www.journalofvision.org/5/8/786/>
- 47 Doerschner, K., Boyaci, H., Maloney, L. T., (2005). *Representing the spatial and chromatic distribution of the illuminant in scenes with multiple punctate chromatic light sources* [Abstract]. *Journal of Vision*, **5**(8):785, 785a. The Annual Meeting of the Vision Sciences Society, Sarasota, Florida, May 2005. <http://www.journalofvision.org/5/8/785/>
- 48 Boyaci, H., Doerschner, K., and Maloney, L. T., (2005). *Observers discount effects of multiple chromatic light sources when estimating surface color*. 10th Congress of the International Colour Association, Granada, Spain, 8-13 May 2005.
- 49 Maloney, L. T., Doerschner, K., Boyaci, H., (2005). *Surface color perception in three-dimensional scenes with non-uniform spatial and spectral distribution of illumination*. Computational and Systems Neuroscience, Salt Lake City, Utah, March 2005.
- 50 Maloney, L. T., Boyaci, H. and Doerschner, K. (2005). *Surface color perception as an inverse problem in biological vision*. Keynote address, IS&T/SPIE Conference on Electronic Imaging; Science and Technology, San Jose, California, January, 2005.
- 51 Doerschner, K., Boyaci, H., and Maloney, L. T. (2004). *Estimating the glossiness transfer function induced by changing illumination and testing its transitivity* [Abstract]. *Journal of Vision*, **4**(8):232, 322a. The Annual Meeting of the Vision Sciences Society, Sarasota, Florida, May 2004. <http://www.journalofvision.org/4/8/322/>
- 52 Doerschner, K., Boyaci, H., and Maloney, L. T. (2003). *Human observers compensate for secondary illumination originating in nearby chromatic surfaces in making achromatic settings* [Abstract]. *Journal of Vision*, **3**(9):450, 450a. The Annual Meeting of the Vision Sciences Society, Sarasota, Florida, May 2003. <http://journalofvision.org/3/9/450/>
- 53 Boyaci, H., Doerschner, K., and Maloney, L. T. (2003). *Achromatic settings in three-dimensional scenes with two light sources differing in chromaticity* [Abstract]. *Journal of Vision*, **3**(9):451,451a. The Annual Meeting of the Vision Sciences Society, Sarasota, Florida, May 2003. <http://journalofvision.org/3/9/451/>

- 54 Valentino, D., Hargraves, E., Dupres, E., Doerschner, K. (2002). *Effects of Caffeine on Attention Oscillations*, Eastern Psychological Association Meetings, Boston, March 2002
- 55 Tarr, M., Rossion, B., Doerschner, K., (2002). *Men are from Mars, Woman are from Venus: Behavioral and neural correlates of face sexing using color*, [Abstract]. *Journal of Vision*, **2**(7):298,298a. The Annual Meeting of the Vision Sciences Society, Sarasota, Florida, May 2002. [http:// www.journalofvision.org/2/7/598/](http://www.journalofvision.org/2/7/598/)

ADVISING

Postdoctoral

- 1 Dr. Aslihan Ors, 2010-2011
- 2 Dr. Ozgur Yilmaz, 2010-2011
- 3 Dr. Irtiza Gilani 2012-2014
- 4 Dr. Dicle Dovencioglu 2013-current

Doctoral

- 1 Boyaci, P. (Bilkent University, Neuroscience Program), Structural and functional connectivity in patients with rare neuro-developmental disorders. 2012 - current, Advisor
- 2 Urgan, B. (Bilkent University, Neuroscience Program), Morphometry and visual function of a patient with congenital occipital pachygyria. 2013 - current, Advisor

Master's

- 1 Ustun, S. (Bilkent University, Neuroscience Program), Functional Localization and connectivity in patient with congenital occipital pachygyria. 2013 - current, Advisor
- 2 Kucukoglu, G. (Middle East Technical University, Informatics Institute, Cognitive Science), High-Level Object Recognition in LOC - Influences of surface material on object recognition. 2009 - 2012, Co-advisor
- 3 Kulce, O. (Department of Electrical and Electronic Engineering), Spatiotemporal analysis and synthesis of optic flow, 2010 -2012, Co-advisor

TIC committee

- 1 Metin, M. O. (Middle East Technical University, Informatics Institute, Cognitive Science), Finite Element Analysis of DWI. 2010 - current.
- 2 Odabasioglu, S. (Bilkent University, Department of Art, Design and Architecture), Effect of Area on Color Harmony in Interior Spaces. 2011-current

PhD Thesis defense jury

- 1 Onat, O. E. (Bilkent University, Department of Molecular Biology and Genetics), 2012
- 2 Mustafa, C. A. (Bilkent University, Department of Molecular Biology and Genetics), 2012

DEPARTMENTAL SERVICES

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|-------------|---|
| 2008 - 2013 | Organizer of departmental seminars |
| 2011- 2012 | Graduate program coordinator |
| 2008 - 2014 | Undergraduate and senior thesis advising |
| 2011 - 2014 | Co-developed the Bilkent Neuroscience graduate program and curriculum |

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