

Session Type	Session Title	Session Number	Session Start	Session End	Location	Abstract Title	Presentation Start	Presentation End	Presentation Number	Poster Board Number	Organizing Section	Authors Institutions
<b>Sunday, May 3, 2009</b>												
Poster Session	Retinal Imaging	115	5/3/09 8:30 AM	5/3/09 10:15 AM	Hall B/C	<b>Detection and Quantification of Pathology Associated with Non-Exudative Age-Related Macular Degeneration in the Central Macula Using Custom Scanning Laser Polarimetry Imaging</b>	5/3/09 8:30 AM	5/3/09 10:15 AM	342	D1060	Visual Psychophysics/ Physiological Optics	D.A. Van Nasdale <sup>1</sup> , A.E. Elsner <sup>1</sup> , B.P. Haggerty <sup>1</sup> , A. Weber <sup>2</sup> , M. Miura <sup>3</sup> . <sup>1</sup> Optometry, Indiana University School of Optometry, Bloomington, IN; <sup>2</sup> Ophthalmology, University Hospital, Aachen, Germany; <sup>3</sup> Ophthalmology, Tokyo Medical University, Tokyo, Japan.
Poster Session	Evaluation of the Anterior Eye and Tear Film	124	5/3/09 11:15 AM	5/3/09 1:00 PM	Hall B/C	<b>Detection of Edges of Tear Break-Up Imaged by Different Methods</b>	5/3/09 11:15 AM	5/3/09 1:00 PM	523	A493	Cornea	Z. Wu, C.G. Begley, N. Himebaugh. Optometry, Indiana University, Bloomington, IN.
Poster Session	Evaluation of the Anterior Eye and Tear Film	124	5/3/09 11:15 AM	5/3/09 1:00 PM	Hall B/C	<b>Simultaneous Measurement of Fluorescein Tear Film Break-up, Wavefront Optics, and Visual Function</b>	5/3/09 11:15 AM	5/3/09 1:00 PM	528	A498	Cornea	P.S. Kollbaum <sup>1</sup> , C.G. Begley <sup>1</sup> , C. Springs <sup>2</sup> , Z. Wu <sup>1</sup> , N.L. Himebaugh <sup>1</sup> . <sup>1</sup> Optometry, Indiana University, Bloomington, IN; <sup>2</sup> Ophthalmology, Indiana University, Indianapolis, IN.
Poster Session	Evaluation of the Anterior Eye and Tear Film	124	5/3/09 11:15 AM	5/3/09 1:00 PM	Hall B/C	<b>Application of RMS Fit Error for Assessing Pre-lens Tear Film Break-up</b>	5/3/09 11:15 AM	5/3/09 1:00 PM	535	A505	Cornea	N.L. Himebaugh <sup>1</sup> , C.G. Begley <sup>1</sup> , Z. Wu <sup>1</sup> , R.L. Chalmers <sup>1</sup> , K. Moody <sup>2</sup> . <sup>1</sup> School of Optometry, Indiana University, Bloomington, IN; <sup>2</sup> Vistakon, Johnson & Johnson Vision Care, Inc., Jacksonville, FL.
Poster Session	OCT Instrumentation and Image Processing	155	5/3/09 2:45 PM	5/3/09 4:30 PM	Hall B/C	<b>Foveal Morphology of the Human Retina</b>	5/3/09 2:45 PM	5/3/09 4:30 PM	1108	D1052	Multidisciplinary Ophthalmic Imaging Group	T.Y. Chui, A. Bradley, H. Song, S.A. Burns. School of Optometry, Indiana University, Bloomington, IN.
Poster Session	Adaptive Optics Imaging	154	5/3/09 2:45 PM	5/3/09 4:30 PM	Hall B/C	<b>Improve Adaptive Optics Wavefront Control Accuracy for Retinal Imaging With Dual-influence-matrix Method</b>	5/3/09 2:45 PM	5/3/09 4:30 PM	1052	D960	Visual Psychophysics/ Physiological Optics	W. Zou, S.A. Burns. School of Optometry, Indiana University, Bloomington, IN.
Poster Session	Adaptive Optics Imaging	154	5/3/09 2:45 PM	5/3/09 4:30 PM	Hall B/C	<b>Wavelength Variable Adaptive Optics Imaging Using a Supercontinuum Light Source</b>	5/3/09 2:45 PM	5/3/09 4:30 PM	1053	D961	Visual Psychophysics/ Physiological Optics	S.A. Burns, W. Zou, H. Song, Z. Zhong. School of Optometry, Indiana University, Bloomington, IN.
Poster Session	Adaptive Optics Imaging	154	5/3/09 2:45 PM	5/3/09 4:30 PM	Hall B/C	<b>High Speed Electro-optics Based Adaptive Optics Scanning Laser Ophthalmoscope (AOSLO) Polarimeter</b>	5/3/09 2:45 PM	5/3/09 4:30 PM	1055	D963	Visual Psychophysics/ Physiological Optics	H. Song, X. Qi, T.Y. Chui, Z. Zhong, W. Zou, S.A. Burns. Optometry School, Indiana University, Bloomington, IN.

Session Type	Session Title	Session Number	Session Start	Session End	Location	Abstract Title	Presentation Start	Presentation End	Presentation Number	Poster Board Number	Organizing Section	Authors Institutions
<b>Monday, May 4, 2009</b>												
Paper Session	Strabismus I	202	5/4/09 8:30 AM	5/4/09 10:15 AM	Palm A	<b>Accommodative and Vergence Responses to Conflicting Blur and Disparity Stimuli During Visual Development</b>	5/4/09 9:15 AM	5/4/09 9:30 AM	1207		<b>Eye Movements/Strabismus/Amblyopia/Neuro-Ophthalmology</b>	S.R. Bharadwaj, T.R. Candy. School of Optometry, Indiana Univ Bloomington, Bloomington, IN.
Poster Session	Molecular Pharmacology in Ophthalmology	223	5/4/09 8:30 AM	5/4/09 10:15 AM	Hall B/C	<b>Actin Cytoskeleton Regulates Both Formation and Disassembly of Adherens and Tight Junctions in the Corneal Endothelium</b>	5/4/09 8:30 AM	5/4/09 10:15 AM	1457	A347	<b>Physiology/Pharmacology</b>	C. Ramachandran, S.P. Srinivas. School of Optometry, Indiana University, Bloomington, IN.
Poster Session	Aberrations, Image Quality and Visual Performance	227	5/4/09 8:30 AM	5/4/09 10:15 AM	Hall B/C	<b>Describing Ocular Aberrations With Wavefront Vergence Maps</b>	5/4/09 8:30 AM	5/4/09 10:15 AM	1553	D798	<b>Visual Psychophysics/Physiological Optics</b>	J. Nam1, L.N. Thibos1, D. Iskander2. 1Optometry, Indiana University, Bloomington, IN; 2Optometry, Queensland University of Technology, Brisbane, Australia.
Poster Session	Corneal Endothelium: Cell Biology	256	5/4/09 1:45 PM	5/4/09 3:30 PM	Hall B/C	<b>Cloning and Characterization of the Borate Transporter SLC4A11 in Bovine Corneal Endothelial Cells</b>	5/4/09 1:45 PM	5/4/09 3:30 PM	1797	A465	<b>Cornea</b>	K.K. Dutta1, S.J. Shivakumar1, T. Nguyen1, C. Liu1, E. Vithana2, J.A. Bonanno1. 1Optometry, Indiana University, Bloomington, IN; 2Genetics, Singapore Eye Research Institute, Singapore, Singapore.
Poster Session	Corneal Endothelium: Cell Biology	256	5/4/09 1:45 PM	5/4/09 3:30 PM	Hall B/C	<b>Expression of the Borate Transporter NaBC1 (SLC4A11) in Bovine Corneal Endothelial Cells (BCEC)</b>	5/4/09 1:45 PM	5/4/09 3:30 PM	1801	A469	<b>Cornea</b>	S.S. Jalimarada1, K.K. Dutta1, E.N. Vithana2, J.A. Bonanno1. 1Sch of Optometry, Indiana University, Bloomington, IN; 2Singapore Eye Research Institute, National University of Singapore, Singapore, Singapore.
Poster Session	Corneal Endothelium: Cell Biology	256	5/4/09 1:45 PM	5/4/09 3:30 PM	Hall B/C	<b>Lactic Acid Transport in the Rabbit Corneal Endothelium</b>	5/4/09 1:45 PM	5/4/09 3:30 PM	1814	A482	<b>Cornea</b>	T.T. Nguyen, J.A. Bonanno. Optometry, Indiana University, Bloomington, IN.
Poster Session	Corneal Endothelium: Cell Biology	256	5/4/09 1:45 PM	5/4/09 3:30 PM	Hall B/C	<b>Role of MMPs in TNF-<math>\alpha</math>-Induced Loss of Barrier Integrity of Corneal Endothelium</b>	5/4/09 1:45 PM	5/4/09 3:30 PM	1815	A483	<b>Cornea</b>	M. Shivanna1, M. Satpathy2, S.P. Srinivas1. 1Optometry, Indiana Univ Sch of Optometry, Bloomington, IN; 2Hematology/Oncology, IUPUI, Indianapolis, IN.
Poster Session	Corneal Endothelium: Cell Biology	256	5/4/09 1:45 PM	5/4/09 3:30 PM	Hall B/C	<b>SOD2 Gene Expression and siRNA Knockdown in Rabbit Corneal Endothelial Cells</b>	5/4/09 1:45 PM	5/4/09 3:30 PM	1825	A493	<b>Cornea</b>	C. Liu, M. Calvin, K. Dutta, J. Bonanno. School of Optometry, Indiana Univ, Bloomington, IN.
Poster Session	Visual Impairment/Low Vision	293	5/4/09 3:45 PM	5/4/09 5:30 PM	Hall B/C	<b>The Effect of Recent and Chronic Stress on Visual Function and Visual Attention. The SEEDS Study</b>	5/4/09 3:45 PM	5/4/09 5:30 PM	2497	D880	<b>Clinical /Epidemiologic Research</b>	B.E. Munoz1A, K.A. Turano1A, C.A. Munro2, S.E. Hassan3, L. Keay1B,4, K.J. Bandeen Roche5, E.W. Gower1A, S.K. West1A. AOphthalmology, BDana Center for Preventive Ophthalmology, 1Johns Hopkins Wilmer Eye Inst, Baltimore, MD; 2Department of Psychiatry and Behavioral Sciences, Johns Hopkins University School of Medicine, Baltimore, MD; 3Ophthalmology, Indiana University, Bloomington, IN; 4George Institute for International Health, University of Sydney, Sydney, Australia; 5Biostatistics, Johns Hopkins Bloomberg School of Public Health, Baltimore, MD.
Poster Session	Nanotechnology	290	5/4/09 3:45 PM	5/4/09 5:30 PM	Hall B/C	<b>Kinetics of Drug Penetration Across the Cornea at a Microscopic Level</b>	5/4/09 3:45 PM	5/4/09 5:15 PM	2420	A508	<b>Nanotechnology Group</b>	S.P. Srinivas1, A. Chauhan2, C. Gupta2. 1Optometry, Indiana University, Bloomington, IN; 2Chemical Engineering, University of Florida, Gainesville, FL.
Symposia	Visual Performance with Adaptive Optics Correction - Minisymposium	267	5/4/09 3:45 PM	5/4/09 5:30 PM	Palm A	Moderator	5/4/09 3:45 PM	5/4/09 5:30 PM			<b>Visual Psychophysics/Physiological Optics</b>	D.T. Miller. School of Optometry, Indiana University, Bloomington, IN.

Session Type	Session Title	Session Number	Session Start	Session End	Location	Abstract Title	Presentation Start	Presentation End	Presentation Number	Poster Board Number	Organizing Section	Authors Institutions
<b>Tuesday, May 5, 2009</b>												
Poster Session	Eye Movements, Stereopsis and Visuomotor Organization	325	5/5/09 8:30 AM	5/5/09 10:15 AM	Hall B/C	<b>The Effect of Induced Anisometropia on Accommodation and Vergence During Development</b>	5/5/09 8:30 AM	5/5/09 10:15 AM	2894	A79	Eye Movements/Strabismus/Amblyopia/Neuro-Ophthalmology	T.R. Candy, S.R. Bharadwaj. Optometry, Indiana University, Bloomington, IN.
Poster Session	Eye Movements, Stereopsis and Visuomotor Organization	325	5/5/09 8:30 AM	5/5/09 10:15 AM	Hall B/C	<b>Accommodative-Vergence and Vergence-Accommodation Cross-link Gains in Preschoolers</b>	5/5/09 8:30 AM	5/5/09 10:15 AM	2895	A80	Eye Movements/Strabismus/Amblyopia/Neuro-Ophthalmology	D.F. Teel, S.R. Bharadwaj, T.R. Candy. Indiana University, Bloomington, IN.
Poster Session	Color Vision, Pigments and Photoreceptors	319	5/5/09 8:30 AM	5/5/09 10:15 AM	Hall B/C	<b>Photoreceptor Directionality Measured With Shack-Hartmann Wavefront Sensing</b>	5/5/09 8:30 AM	5/5/09 10:15 AM	2741	A605	Visual Psychophysics/Physiological Optics	W. Gao, R.S. Jonnal, B. Cense, O. Kocaoglu, Q. Wang, D.T. Miller. School of Optometry, Indiana University, Bloomington, IN.
Poster Session	Imaging I	361	5/5/09 1:45 PM	5/5/09 3:30 PM	Hall B/C	<b>Low Cost Retinal Imaging for Diabetic Retinopathy Screening</b>	5/5/09 1:45 PM	5/5/09 3:30 PM	3305	A323	Retina+	M.S. Muller, A.E. Elsner, D.A. VanNasdale, B.P. Haggerty, T.D. Peabody, R.C. Gustus, B.L. Petrig. School of Optometry, Indiana University, Bloomington, IN.
Paper Session	Structure/Function Associations in Glaucoma	375	5/5/09 3:45 PM	5/5/09 5:30 PM	Grand Floridian D	Moderator	5/5/09 3:45 PM	5/5/09 5:30 PM			Glaucoma	W.H. Swanson. School of Optometry, Indiana University, Bloomington, IN.
Paper Session	Structure/Function Associations in Glaucoma	375	5/5/09 3:45 PM	5/5/09 5:30 PM	Grand Floridian D	<b>Optic Disc and Visual Field Abnormalities in Patients With Glaucoma: Comparable Sensitivity When Measures Are Equated for Specificity</b>	5/5/09 4:00 PM	5/5/09 4:15 PM	3512		Glaucoma	W.H. Swanson <sup>1</sup> , V.E. Malinovskiy <sup>1</sup> , M.W. Dul <sup>2</sup> , K. Holopigian <sup>3</sup> . <sup>1</sup> School of Optometry, Indiana University, Bloomington, IN; <sup>2</sup> Clinical Sciences, SUNY State College of Optometry, New York, NY; <sup>3</sup> Ophthalmology, NYU School of Medicine, New York, NY.
<b>Wednesday, May 6, 2009</b>												
Poster Session	The Ins and Outs of the Tear Film and the Ocular Surface	425	5/6/09 8:30 AM	5/6/09 10:15 AM	Hall B/C	<b>Sensory Response to Tear Instability</b>	5/6/09 8:30 AM	5/6/09 10:15 AM	4243	D846	Cornea	C.G. Begley, E. Salvo, Z. Wu, N. Himebaugh. School of Optometry, Indiana University, Bloomington, IN.
Poster Session	Visual Impairment: Testing, Function and Rehabilitation	461	5/6/09 1:45 PM	5/6/09 3:30 PM	Hall B/C	<b>Are Pedestrians Able to Make Correct Street-Crossing Decisions Using Only Auditory Information?</b>	5/6/09 1:45 PM	5/6/09 3:30 PM	4721	D987	Visual Psychophysics/Physiological Optics	S.E. Hassan <sup>1</sup> , G.D. Barnett <sup>2</sup> , A. Moore <sup>1</sup> , R.W. Massof <sup>2</sup> . <sup>1</sup> School of Optometry, Indiana University, Bloomington, IN; <sup>2</sup> Wilmer Eye Institute, Johns Hopkins University, Baltimore, MD.
Poster Session	Optics and Topography	483	5/6/09 3:45 PM	5/6/09 5:30 PM	Hall B/C	<b>Application of Multiple Diagnostic Modalities to Differentiate Between Corneal Ectasia Types</b>	5/6/09 3:45 PM	5/6/09 5:30 PM	5097	D1043	Cornea	G. Patel <sup>1</sup> , M.A. Qazi <sup>1</sup> , A.M. Mahmoud <sup>2</sup> , P.S. Kollbaum <sup>3</sup> , M.M. Merchea <sup>4</sup> , C.J. Roberts <sup>2</sup> , J.S. Pepose <sup>1</sup> . <sup>1</sup> Pepose Vision Institute, Chesterfield, MO; <sup>2</sup> Ohio State University, Columbus, OH; <sup>3</sup> Indiana University, Bloomington, IN; <sup>4</sup> Bauch & Lomb, Rochester, NY.
Paper Session	Retinal Disease: Human and Animal Models	464	5/6/09 3:45 PM	5/6/09 5:30 PM	Room 305	Moderator	5/6/09 3:45 PM	5/6/09 5:30 PM			Visual Neurophysiology	S. Viswanathan. School of Optometry, Indiana University, Bloomington, IN.
Paper Session	Retinal Disease: Human and Animal Models	464	5/6/09 3:45 PM	5/6/09 5:30 PM	Room 305	<b>Multifocal Photopic Negative Responses (mfPhNR) of Macaques and Humans</b>	5/6/09 4:15 PM	5/6/09 4:30 PM	4758		Visual Neurophysiology	S. Viswanathan <sup>1</sup> , L.J. Frishman <sup>2</sup> , A.W. Van Alstine <sup>1</sup> , X. Lou <sup>2</sup> , W.H. Swanson <sup>1</sup> . <sup>1</sup> School of Optometry, Indiana University, Bloomington, IN; <sup>2</sup> College of Optometry, University of Houston, Houston, TX.
Paper Session	From Cones to Capillaries: High-Resolution Imaging of Retinal Anatomy	466	5/6/09 3:45 PM	5/6/09 5:30 PM	Floridian Ballroom A	<b>Imaging Retinal Nerve Fiber Bundles Using Optical Coherence Tomography With Adaptive Optics</b>	5/6/09 4:15 PM	5/6/09 4:30 PM	4772		Visual Psychophysics/Physiological Optics	O.P. Kocaoglu, B. Cense, Q. Wang, R.S. Jonnal, W. Gao, D.T. Miller. School of Optometry, Indiana University, Bloomington, IN.
Paper Session	From Cones to Capillaries: High-Resolution Imaging of Retinal Anatomy	466	5/6/09 3:45 PM	5/6/09 5:30 PM	Floridian Ballroom A	<b>High Speed Imaging of Retinal Microvessels Using an AOSLO</b>	5/6/09 4:30 PM	5/6/09 4:45 PM	4773		Visual Psychophysics/Physiological Optics	Z. Zhong, H. Song, X. Qi, S.A. Burns. School of Optometry, Indiana Univ Bloomington, Bloomington, IN.
Paper Session	From Cones to Capillaries: High-Resolution Imaging of Retinal Anatomy	466	5/6/09 3:45 PM	5/6/09 5:30 PM	Floridian Ballroom A	<b>Imaging Retinal Capillaries Using Optical Coherence Tomography and Adaptive Optics</b>	5/6/09 4:45 PM	5/6/09 5:00 PM	4774		Visual Psychophysics/Physiological Optics	Q. Wang, B. Cense, O. Kocaoglu, R.S. Jonnal, W. Gao, D.T. Miller. School of Optometry, Indiana University, Bloomington, IN.

Session Type	Session Title	Session Number	Session Start	Session End	Location	Abstract Title	Presentation Start	Presentation End	Presentation Number	Poster Board Number	Organizing Section	Authors Institutions
<b>Thursday, May 7, 2009</b>												
Paper Session	Retinal Imaging to Probe Function in Normal and Diseased Retinae	502	5/7/09 8:30 AM	5/7/09 10:15 AM	Palm A	<b>Mapping Fundus Autofluorescence in the Central Macula</b>	5/7/09 8:45 AM	5/7/09 9:00 AM	5167		Visual Psychophysics/ Physiological Optics	A.E. Elsner, D.A. VanNasdale, Jr., B.P. Haggerty, R.C. Gustus, B.L. Petrig. Optometry, Indiana University, Bloomington, IN.
Paper Session	Retinal Imaging to Probe Function in Normal and Diseased Retinae	502	5/7/09 8:30 AM	5/7/09 10:15 AM	Palm A	<b>Stability of Cone Reflectance Under Temporally-coherent Illumination</b>	5/7/09 10:00 AM	5/7/09 10:15 AM	5172		Visual Psychophysics/ Physiological Optics	R.S. Jonnal, J.C. Derby, B. Cense, W. Gao, O.P. Kocaoglu, Q. Wang, D.T. Miller. Optometry, Indiana University, Bloomington, IN.
Poster Session	Contact Lens I	528	5/7/09 8:30 AM	5/7/09 10:15 AM	Hall B/C	<b>Designing Contact Lenses for a Wide Field of View via Ocular Wavefront Tomography</b>	5/7/09 8:30 AM	5/7/09 10:15 AM	5641	D950	Cornea	L.N. Thibos, X. Wei. Optometry, Indiana University, Bloomington, IN.
Poster Session	Imaging III	512	5/7/09 8:30 AM	5/7/09 10:15 AM	Hall B/C	<b>Low Cost Retinal Imaging and Mapping of Fixation with the Laser Scanning Digital Camera</b>	5/7/09 8:30 AM	5/7/09 10:15 AM	5279	A140	Retina+	B.L. Petrig, M.S. Muller, A.E. Elsner, D.A. VanNasdale, B.P. Haggerty, R.C. Gustus, E.J. Kollbaum. School of Optometry, Indiana University, Bloomington, IN.
Paper Session	Central and Peripheral Aberrations	558	5/7/09 1:15 PM	5/7/09 3:00 PM	Room 315	<b>Customization of a Wide Angle Schematic Eye by Ocular Wavefront Tomography</b>	5/7/09 2:15 PM	5/7/09 2:30 PM	6163		Visual Psychophysics/ Physiological Optics	X. Wei, L. Thibos. Vision Science, Indiana University, Bloomington, IN.
Paper Session	Central and Peripheral Aberrations	558	5/7/09 1:15 PM	5/7/09 3:00 PM	Room 315	<b>Measuring Ocular Aberrations and Image Quality in Peripheral Vision With and Without Soft Contact Lens Correction</b>	5/7/09 2:30 PM	5/7/09 2:45 PM	6164		Visual Psychophysics/ Physiological Optics	J. Shen, C.A. Clark, S.P. Soni, L.N. Thibos. School of Optometry, Indiana University, Bloomington, IN.
Poster Session	Contact Lens II	571	5/7/09 1:15 PM	5/7/09 3:00 PM	Hall B/C	<b>Contact Lens Dry Eye Questionnaire-8 (CLDEQ-8): Use of an 8-Item Habitual Symptom Score to Reflect Change in Overall Opinion on Contact Lens Performance</b>	5/7/09 1:15 PM	5/7/09 3:00 PM	6337	D975	Cornea	R.L. Chalmers <sup>1</sup> , C. Begley <sup>2</sup> , K. Moody <sup>3</sup> . <sup>1</sup> Indiana University School of Optometry, Atlanta, GA; <sup>2</sup> Indiana University School of Optometry, Bloomington, IN; <sup>3</sup> Vistakon, Johnson and Johnson Vision Care, Inc., Jacksonville, FL.
Poster Session	Retinal Dystrophy II	568	5/7/09 1:15 PM	5/7/09 3:00 PM	Hall B/C	<b>Visual Field and Multifocal ERG Progression in Patients With Retinitis Pigmentosa</b>	5/7/09 1:15 PM	5/7/09 3:00 PM	6258	D674	Retina+	K. Holopigian <sup>1</sup> , J.M. Gallardo <sup>1</sup> , W. Seiple <sup>1</sup> , W.H. Swanson <sup>2</sup> , R.E. Carr <sup>1</sup> . <sup>1</sup> Ophthalmology, New York Univ School of Med, New York, NY; <sup>2</sup> School of Optometry, Indiana University, Bloomington, IN.