

Biosystems and Signals

<i>Poster/ Group</i>	<i>Presenter</i>	<i>Title</i>
1/1	Bush, Adam	<i>Autonomic Abnormalities in Response to Exercise in Sickle Cell Trait: Indications for Sudden Death</i>
2/2	Chalacheva, Patjanaporn	<i>Time-Varying Autonomic Nervous System Estimation during Cold Face Stimulation</i>
3/3	Eikenberry, Steffen **	<i>A Nonlinear Autoregressive Volterra Model of the Hodgkin-Huxley Equations</i>
4/4	Henley, Brandon **	<i>Volterra Modeling of Cerebral Autoregulation in Healthy Humans and Patients with Mild Cognitive Impairment</i>
Oral	Kurse, Manish	<i>Simultaneous inference of topology and parameter values of computational models of tendon routing in the fingers</i>
5/1	Lee, Susan	<i>Vitreous VEGF Clearance is Increased following Vitrectomy</i>
6/2	Mallen-Ornelas, Gabriela	<i>Combined Parameter and Covariate PK/PD Population Analysis</i>
71/1	Nandyala, Sirish	<i>Hardware emulation of spasticity in the human nervous system</i>
7/3	Ramos, Christopher **	<i>Common Control Strategies for Generating Angular Momentum in Forward and Backward Translating Tasks</i>
8/4	Ravi, Sneha **	<i>Model of the mglur6 Signaling Cascade and the Simulation of Light-Evoked Responses in ON Bipolar Cells</i>
9/1	Soleymani, Sadaf	<i>Comprehensive, Continuous Hemodynamic Monitoring and Data Acquisition: Potential Clinical Relevance</i>
10/2	Sutjandra, Liviawati	<i>Ribavirin Plasma and Intracellular Pharmacokinetics in Subjects with Hepatitis C Virus Genotype 1</i>
11/3	Tran, Winston	<i>Developing Noninvasive Autonomic Biomarkers to Assess Metabolic Function</i>
54/1	Zaferiou, Antonia	<i>Mechanisms Skilled Dancers Use to Control Balance and Generate Angular Momentum in a Pirouette</i>

Cell and Tissue Engineering

<i>Poster/ Group</i>	<i>Presenter</i>	<i>Title</i>
12/4	Beebe, Tyler	<i>Protein Kinase C Epsilon Linking Shear Stress to Endothelial Lumen Formation</i>
13/1	Jen, Nelson	<i>Polymer-based MEMs Sensor Measurement of Hemodynamic Changes in Rapid Irregularly Paced New Zealand White Rabbits</i>
14/2	Nayar, Vinod	<i>Elastic Characterization of Agar</i>
15/3	Zitting, Madison	<i>Flipped ZnT8 for the Study of Zinc Transport</i>

Devices and Diagnostic Technology

<i>Poster/ Group</i>	<i>Presenter</i>	<i>Title</i>
16/4	Cabrera Munoz, Nestor **	<i>Electrochemical Impedance Measurement for Dose Tracking and Closed-Loop Drug Delivery Applications</i>
17/1	Chen, Ruimin	<i>Thermal-independent properties of PIN-PMN-PT Single Crystal Linear Array Transducer</i>
18/2	Chen, Yu **	<i>Design and analysis of a passive micro check valve for controlled drug infusion</i>

Devices and Diagnostic Technology, continued

<i>Poster/ Group</i>	<i>Presenter</i>	<i>Title</i>
19/3	Cole, Marc	<i>Optimal Electrical Stimulation of Smooth Muscle</i>
21/4	Ghosh, Debjit	<i>Virtual Neonatal Echocardiography Training System (VNETS): Simulation of Echocardiography in 2D, 3D and 4D</i>
22/1	Hara, Seth	<i>Microelectrodes and Microfluidics for a Bi-Directional Chemical Neural Interface</i>
23/2	Kim, Brian	<i>A Parylene Microchannel-based Electrochemical-MEMS Force Sensor Array for Neuroengineering Applications</i>
24/3	Lee, Changyang	<i>Real time acoustic sorting of flowing microdroplets in a microfluidic device</i>
Oral	Li, Xiang	<i>Integrated Ultrasound (US) - Optical Coherence Tomography (OCT) system for Intravascular Imaging</i>
25/4	Liyanagamage, Shanie **	<i>Why and When do we Heft?</i>
84/3	Mante, Nii Tete	<i>An Object Localization and Feedback System</i>
26/1	Murali, Karthik	<i>Spatio-temporal characteristics of oxygen diffusion in the vitreous humor</i>
27/2	Nicholson, Adriana**	<i>Analysis and Minimization of Power Consumption in a Fetal Pacemaker</i>
28/3	Peng, Yu-Hao **	<i>Fabrication of Asymmetric Lipid Vesicles by Capillary Microfluidic Devices</i>
29/4	Ramirez-Rocamora, Juan-Miguel **	<i>A Novel Approach to Real-Time Motion Capture and Processing for Human Biomechanical Analysis</i>
30/1	Reyes, Alexander	<i>Simultaneous acquisition of electrocorticographic, motion, surface electromyographic and force data</i>
31/2	Sheybani, Roya	<i>High Efficiency Wireless MEMS Electrochemical Actuators for On-demand Site-specific Drug Delivery</i>
32/3	Su, Zhe	<i>Use of tactile feedback to control robotic exploratory movements</i>
33/4	Yu, Fei	<i>Atrial Fibrillation Pacing Reduces Intravascular Shear Stress in a New Zealand White Rabbit Model</i>
34/1	Yu, Lawrence **	<i>A Parylene Microbubble Pressure Sensor based on Electrochemical Impedance Transduction</i>
35/2	Zheng, Fan	<i>A High-frequency Ultrasonic Phased Array Imaging System Evaluation</i>

Imaging

<i>Poster/ Group</i>	<i>Presenter</i>	<i>Title</i>
36/3	Ashoori, Ida	<i>Dynamic proton MRS in pediatric brain tumors with prominent citrate</i>
37/4	Borzage, Matthew	<i>BOLD Imaging of Adults and Infants Under Hypoxia and Hyperoxia</i>
38/1	Chen, Yuling	<i>Real-time Rectilinear Volumetric Acquisition with a 7.5 MHz Dual-layer Array Transducer – Data Acquisition and Signal Processing</i>
39/2	Chiu, Chi Tat **	<i>Detection of Micro-scale Defect of Silicon Carbide Mirror using High Frequency Ultrasound Scanning</i>
40/3	Cummins, Thomas	<i>Hybrid Photoacoustic-Ultrasonic System For Real-Time, In-Vivo Imaging</i>
41/4	Cunningham, Samantha	<i>Variability of Primary Visual Cortex Activation Responses to Tactile Stimulation in Sighted Individuals</i>

Imaging, continued

<i>Poster/Group</i>	<i>Presenter</i>	<i>Title</i>
42/1	Doyle, Eamon **	<i>Monte Carlo Modeling of Iron Relaxation in the Liver at 1.5 and 3 Tesla</i>
43/2	Gajawelli, Niharika	<i>Hippocampal subfield multifiber tractography using ICA in 3T clinical diffusion data</i>
44/3	Jao, Terrence **	<i>Spatiotemporal Filtering of Myocardial ASL Data: Implications in Detection and Diagnosis of Coronary Artery Disease</i>
45/4	Kang, Bong Jin	<i>Ultrasound Ophthalmic Imaging using High Frequency Linear Array Transducer and 64-channel Digital Receive Beamformer</i>
46/1	Ma, Kevin	<i>Lesion Comparison of Multiple Sclerosis in Hispanic and Caucasian patients utilizing an Imaging Informatics-based eFolder System</i>
47/2	Ma, Teng **	<i>Optimized High-frequency PMN-PT Single Crystal Ultrasonic Transducer design for Photoacoustic Ophthalmoscopy</i>
48/3	Nguyen, Man	<i>Fresnel Beamforming and Dual Apodization with Cross-Correlation for Curvilinear Arrays in Low-cost Portable Ultrasound System</i>
49/4	Shin, Jun Seob	<i>Synergistic Enhancements of Ultrasound Image Contrast with a Phase Aberration Correction and Dual Apodization with Cross-correlation</i>
83/1	Tsao, Sinchai	<i>Statistical Parametric Mapping of Vascular Dementia using MRI-based Diffusion Tensor Imaging</i>
50/1	Verma, Sneha **	<i>Design and Implementation of a database for DICOM RT Objects for Quality Control in Radiation Oncology</i>
51/2	Wang, Ximing	<i>A Computer Aided Detection (CAD) System With A 3D Algorithm For Small Acute Intracranial Hemorrhage</i>
52/3	Wilkins, Bryce	<i>Comparison of novel ICA-based approach to existing diffusion MRI multi-fiber reconstruction methods</i>
53/4	Wu, Ziyue **	<i>Characterization and Reduction of MRI Acoustic Noise in Sleep Study</i>

Neuroengineering

<i>Poster/Group</i>	<i>Presenter</i>	<i>Title</i>
55/2	Arguelles Morales, Juan Enrique **	<i>Musculoskeletal Modeling for Three Dimensional Reaching Tasks</i>
56/3	Askari, Sina	<i>Modulation of Ankle EMG in Spinally Contused Rats through Application of Neuromuscular Electrical Stimulation Timed to Robotic Treadmill Training</i>
57/4	Cho, Alice	<i>Physiological Response of Mouse Retinal Ganglion Cells to Electrical Stimulation</i>
58/1	Davuluri, Navya	<i>Energy Efficient Charge Based Stimulation of the Retina</i>
59/2	Dunning, Amber **	<i>Visual Psychophysics: A Study on the Ability of the Visual System to Perceive of Stochastic Images</i>
60/3	Feinman, Adam	<i>Nonlinear EMG Estimation as a Control Signal in a One-Muscle Myocontrol Task</i>
Oral	Fishel, Jeremy	<i>Tactile Vibration Sensing with the BioTac – Better Than Human Sensitivity</i>
61/4	Goodner, Jared **	<i>A physiologically plausible learning model for the sensorimotor system</i>

Neuroengineering, continued

<i>Poster/Group</i>	<i>Presenter</i>	<i>Title</i>
62/1	Hendrickson, Phillip	<i>How Cellular and Network-Level Components Contribute to the Processing Capabilities of the Dentate Gyrus – A Computational Study</i>
63/2	Holt, Brendan	<i>AxonNode: A tool for simulating neural networks</i>
64/3	Hu, Eric	<i>A Nonparametric Model Schematic for the Synapse Simulation Platform EONS</i>
65/4	Hu, Wen-Hsien	<i>Optimized Hand Position for Push-Up Exercise: A Dynamics Study with Simulation</i>
Oral	Inouye, Joshua	<i>Regulation of Human Arm Stiffness is Heavily Dependent on Existence of Muscle Synergies</i>
66/1	Ivzan, Nadav	<i>Probabilistic Model Predicting the Retinal Ganglion Cell Responses to Natural Images</i>
67/2	Iyer, Arvind	<i>Fast Emergence of Orientation-selective Information on Natural Images in Cat V1</i>
69/3	Li, Yang **	<i>Modeling of Retinal Ganglion Cells under Extracellular Biphasic-Pulse and Sinusoid Stimulation</i>
70/4	Lin Chia-Hsien	<i>Integration of Tactile Feedback into Control of a Telerobotic Gripper</i>
72/2	Ramachandra, Chaithanya	<i>Natural Image Statistics based Population coding for Local Edge Probability</i>
73/3	Robinson, Brian **	<i>Probabilistic Short-Term Plasticity Implementation for Large-Scale Modeling of Hippocampus</i>
74/4	Sandler, Roman **	<i>Role of Dendritic Tree Branching on Cell Excitability</i>
75/1	Sohn, Won Joon	<i>Emulating the development of hyperkinetic movement disorder 365 times faster than real-time in scalable hardware</i>
Oral	Srinivasan, Arthi	<i>Comparing Speech Perception with Monopolar and Tripolar Stimulation in Cochlear Implant Users</i>
76/2	Srinivasan, Vijayaraghavan	<i>Neuron-Silicon Interface: Mapping the Constraints in Ensemble Recording</i>
77/4	Sunwoo, John **	<i>Improving the Dynamic Programming of a Spinal-Like Regulator by Using Preceding Results to Devise Efficient Search Strategies</i>
Oral	Tsianos, George	<i>Spinal-like regulator facilitates reaching movement in the horizontal plane</i>
78/4	Walston, Steven	<i>Axon Initial Segment in Retinal Ganglion Cells: Identification and Hypothesis on its Effect on Electrical Stimulation Thresholds in Degenerate Retina</i>
79/1	Wang, Boshuo	<i>Dynamic Current Study on Double Layer Capacitance of Disk Electrodes</i>
Oral	Weitz, Andrew	<i>Improving Stimulation Strategies for Epiretinal Prostheses</i>
80/2	Xu, Huijing **	<i>In vivo recording of neural activity in hippocampus CA1 area</i>
81/3	Yu, Gene **	<i>Preserving the Spatial Topography between Rat Entorhinal Cortex Cells and the Dentate Gyrus: a General Methodology to Connect Two Cell Populations</i>
82/4	Yu Pen-Ning	<i>Induction of Epileptiform Activity in Epileptic Human Hippocampal Slices</i>