

## Teaser Presentation Listing 2010 Haptics Symposium

### Poster/Demo Teaser Session 1

Thursday, March 25, 2010

10:10 – 10:45 a.m.

Each poster/demo is assigned a 45-second teaser slot.

ID Number	Publication Type	Title and authors
Poster 01	Paper	<i>Using Force Sensors and Neural Models to Encode Tactile Stimuli as Spike-based Responses</i>  Elmer Kim, Gregory Gerling, Scott Wellnitz, Ellen Lumpkin
Poster 02	Paper	<i>Discrimination of Consonant Articulation Location by Tactile Stimulation of the Forearm</i>  Ali Israr, Elaine Wong, Marcia O'Malley
Poster 03	Paper	<i>Characterization and Simulation of Tactile Sensors</i>  Zachary Pezzementi, Erica Jantho, Lucas Estrade, Gregory Hager
Poster 04	Extended Abstract	<i>Haptic Illusion of Elasticity by Tactile Suppression during Motor Activity</i>  Taku Hachisu, Sayaka Oshima, Yuki Hashimoto, Hiroyuki Kajimoto
Demo 01	Demo	<i>Haptic Illusion of Elasticity by Tactile Suppression during Motor Activity</i>  Taku Hachisu, Sayaka Oshima, Yuki Hashimoto (University of Electro-Communications), and Hiroyuki Kajimoto (University of Electro-Communications and Japan Science and Technology Agency (JST))
Poster 05	Extended Abstract	<i>Optimizing Populations of Tactile Sensors for Sphere Discrimination</i>  Isabelle Rivest, Gregory Gerling
Poster 06	Extended Abstract	<i>Haptic Figure-Ground Differentiation via a Haptic Glance</i>  Dianne Pawluk, Ryo Kitada, Aneta Abramowicz, Cheryl Hamilton, Susan Lederman
Poster 07	Paper	<i>Dynamic Switching Control of Haptic Transmission Direction in Remote Control System</i>  Tatsuya Watanabe, Yutaka Ishibashi, Norishige Fukushima, Shinji Sugawara
Poster 08	Extended Abstract	<i>Virtual Object Manipulation System with Substitutive Display of Tangential Force and Slip by Control of Vibrotactile Phantom Sensation</i>  Tatsuya Ooka, Kinya Fujita
Poster 09	Paper	<i>Comparison of Three Designs for Haptic Button Edges on Touch Screens</i>  Toni Pakkanen, Roope Raisamo, Jukka Raisamo, Katri Salminen, Veikko Surakka
Poster 10	Paper	<i>A Finger Attachment to Generate Tactile Feedback and Make 3D Gesture Detectable by Touch Panel Sensor</i>  Itsuo Kumazawa
Poster 11	Paper	<i>An Initial Study of Visio-haptic Simulation of Point-charge Interactions</i>

Poster 11	Paper	<i>An Initial Study of Visio-haptic Simulation of Point-charge Interactions</i> Jaeyoung Park, Kwangtaek Kim, Hong Z. Tan, Ron Reifenger, Gary Bertoline, Tallulah Hoberman, Deborah Bennett
Poster 12	Paper	<i>Interaction Control for a Brake Actuated Manipulator</i> Brian Dellon, Yoky Matsuoka
Poster 13	Paper	<i>Haptic Interaction with Volumetric Datasets Using Surface-based Haptic Libraries</i> Silvio Rizzi, Cristian Luciano, Pat Banerjee
Poster 14	Paper	<i>Design, Fabrication, and Testing of a Piezo-Resistive Sensor for Use in Minimally Invasive Surgery</i> Masoud Kalantari, Mohammadreza Ramezanifard, Roozbeh Ahmadi, Javad Dargahi, Jozsef Kovecses
Poster 15	Paper	<i>Simulation and Experimental Study of Mobile Robot Haptic Teleoperation with Adaptive Feedback Gain</i> Ildar Farkhatdinov, Jee-Hwan Ryu
Poster 16	Extended Abstract	<i>Simplified Design of Haptic Display by Extending One-point Kinesthetic Feedback to Multipoint Tactile Feedback</i> Kouta Minamizawa, Domenico Prattichizzo, Susumu Tachi
Poster 17	Extended Abstract	<i>Initial Study for Creating Linearly Moving Vibrotactile Sensation on Mobile Device</i> Jongman Seo, Seungmoon Choi
Demo 02	Extended Abstract (196)	<i>Linearly Moving Vibrotactile Sensation on Handheld Mobile Device</i> Jongman Seo and Seungmoon Choi (Pohang University of Science and Technology)
Poster 18	Paper	<i>New Experimental Method based Biological Soft Tissue Modeling</i> Bummo Ahn, Jung Kim
Poster 19	Paper	<i>Physically-Based Analytical Modeling of Deformable Haptic Environments</i> Kevin Walker, David Wang
Poster 20	Extended Abstract	<i>Co-presentation of Force Cues for Skill Transfer via Shared-control Systems</i> Dane Powell, Marcia O'Malley
Poster 21	Paper	<i>HITPROTO: a Tool for the Rapid Prototyping of Haptic Interactions for Haptic Data Visualization</i> Sabrina A. Paneels, Jonathan C. Roberts, Peter J. Rodgers
Poster 22	Paper	<i>Haptic Guides in Cooperative Virtual Environments: Design and Human Performance Evaluation</i> Sehat Ullah, Paul Richard, Samir Otmane, Mickael Naud, Malik Mallem
Poster 23	Extended Abstract	<i>In-Haptics: Interactive Navigation using Haptics</i> Richard Walker, Sean Andersson, Calin Belta, Pierre Dupont
Poster 24	Extended Abstract	<i>The QuickHaptics microAPI: Enabling Haptic Mashups</i>

Poster 25	Paper	<i>Stiffness Modulation for Haptic Augmented Reality: Extension to 3D Interaction</i>  Seokhee Jeon, Seungmoon Choi
Demo 03	Demo	<i>Stiffness Modulation for Haptic Augmented Reality: Extension to 3D Interaction</i>  Seokhee Jeon and Seungmoon Choi (Pohang University of Science and Technology)
Poster 26	Paper	<i>Design and Evaluation of a Vibrotactile Seat to Improve Situation Awareness while Driving</i>  Kamil Wasilewski, John Morrell
Demo 04	Demo	<i>A Vibrotactile Seat and Driving Simulator for Improved Spatial Awareness</i>  John Morrell, Kamil Wasilewski, and Hari Vasudevan (Yale University)
Demo 05	Demo (with Paper)	<i>Expressive, Wearable Haptic Displays</i>  Matthew Pan, Matthew A. Baumann, Thomas W. Hazelton, Karon E. MacLean, and Elizabeth A. Croft (University of British Columbia)
Demo 06	Demo	<i>Tactile Gaming Vest (TGV)</i>  Saurabh Palan, Ruoyao Wang, Nathaniel Naukam, and Katherine J. Kuchenbecker (University of Pennsylvania)
Demo 07	Demo (with Paper)	<i>A Vibrotactile Feedback Approach to Posture Guidance</i>  Ying [Jean] Zheng and John B. Morrell (Yale University)
Demo 08	Demo (with Paper)	<i>Haptic Display via a Vibrating, Rigid Surface</i>  Yon Visell, Guillaume Millet, and Jeremy Cooperstock (McGill University)
Demo 09	Demo	<i>The Haptic Board</i>  Zhihao Jiang, Mohit Bhoite, and Katherine J. Kuchenbecker (University of Pennsylvania)
Demo 10	Demo	<i>Dial-based Haptic Interface</i>  Laehyun Kim, Wanjo Park, Hyunchul Cho, and Sehyung Park (Korea Institute of Science and Technology)
Demo 11	Demo	<i>MasterFinger-2: Multifinger Haptic Device for Virtual Object Manipulation</i>  Pablo Cerrada, Manuel Ferre, Rafael Aracil, Jorge Barrio, and Pablo García-Robledo (Univ. Politécnica de Madrid)
Demo 12	Demo (with Paper)	<i>Haptic Negotiation and Role Exchange with the Haptic Board Game</i>  S. Ozgur Oguz, Ayse Kucukyilmaz, Tevfik Metin Sezgin, and Cagatay Basdogan (Koc University)
Demo 13	Demo	<i>GPU-Based Haptic Rendering of 3D Smoke</i>  Meng Yang (Microsoft Corporation), Jingwan Lu (Hong Kong University of Science and Technology), Alla Safonova (University of Pennsylvania), and Katherine J. Kuchenbecker (University of Pennsylvania)

Demo 14	Demo	<i>Interactive Simulation of Needle Insertion Using a Magnetic Levitation Haptic Interface</i> Bing Wu (Carnegie Mellon University)
Demo 15	Demo	<i>Simulating Dental Procedures with a Magnetic Levitation Haptic Interface</i> Yu Ge (Beihang University and Carnegie Mellon University)
Demo 16	Demo	<i>Virtual Reality Dental Simulator</i> DangXiao Wang, YuRu Zhang, WanLin Zhou, Ge Yu, Jun Wu, and Hui Zhao (BeiHang University)
Demo 17	Demo	<i>Haptic Bite Articulation</i> Venkat Gourishankar and Curt Rawley (SensAble Technologies)
Demo 18	Demo	<i>Stiffness Shifting: Improving the Perceived Hardness of a Virtual Surface</i> Gabjong Han, Seokhee Jeon, and Seungmoon Choi (Pohang University of Science and Technology (POSTECH))
Demo 19	Demo	<i>Exchanging Tracking for Accurate Force Display in Multiple Degree-of-freedom Teleoperation</i> Paul Griffiths and Allison Okamura (Johns Hopkins University)
Demo 20	Demo	<i>Force Feedback Teleoperation for EOD Manipulation Tasks</i> Martin Buehler, Wes Huang, Mark Claffee, Emilie Phillips (iRobot), Walt Aviles, and Jonathan Miller (Novint Technologies)

### Poster/Demo Teaser Session 2

Thursday, March 25, 2010

3:20 – 3:50 a.m.

Each poster/demo is assigned a 45-second teaser slot.

ID Number	Publication Type	Title and authors
Poster 27	Paper	<i>Exploring the Underlying Structure of Haptic-based Handwritten Signatures using Visual Data Mining Techniques</i> Nizar Sakr, Fawaz A. Alsulaiman, Julio J. ValdÈs, Abdulmotaleb El Saddik, Nicolas D. Georganas
Poster 28	Extended Abstract	<i>Towards Real-Time Haptic Exploration using a Mobile Robot as Mediator</i> Chung Hyuk Park, Ayanna M. Howard
Poster 29	Paper	<i>Haptic Characteristics of some Activities of Daily Living</i> Brittany Redmond, Rachel Aina, Tejaswi Gorti, Blake Hannaford
Poster 30	Paper	<i>Design of a Haptic System for Hand Rehabilitation Integrating an Interactive Game with an Advanced Robotic Device</i> Mark Sivak, Ozer Unluhisarcikli, Brian Weinberg, Paolo Bonato, Constantinos Mavroidis
Demo 21	Demo	<i>A Haptic System for Hand Rehabilitation Integrating an Interactive Game with</i>

		<p><i>a Robotic Device</i></p> <p>Mark Sivak, Ozer Unluhisarcikli, Brian Weinberg (Northeastern University), Paolo Bonato (Harvard Medical School and Spaulding Rehabilitation Hospital), and Constantinos Mavroidis (Northeastern University)</p>
Poster 31	Paper	<p><i>Design of a Haptic Device for MRI-Guided Prostate Needle Brachytherapy</i></p> <p>Hao Su, Weijian Shang, Gregory Cole, Kevin Harrington, Gregory Fischer</p>
Poster 32	Paper	<p><i>Stability Analysis of Haptic Interfaces for Different Types of Sampled Signals and Virtual Environment Implementations</i></p> <p>Amir Haddadi, Keyvan Hashtrudi-Zaad</p>
Poster 33	Paper	<p><i>Active Handrest for Precision Manipulation and Ergonomic Support</i></p> <p>Mark Fehlberg, Brian Gleeson, Levi Leishman, William Provancher</p>
Poster 34	Paper	<p><i>Skin Nonlinearities and their Effect on User Perception for Rotational Skin Stretch</i></p> <p>Pete Shull, Karlin Bark, Mark Cutkosky</p>
Poster 35	Paper	<p><i>Cooperative Teleoperation Control with Projective Force Mappings</i></p> <p>Pawel Malysz, Shahin Sirouspour</p>
Poster 36	Extended Abstract	<p><i>Design of a Haptic Simulator for Osteosynthesis Screw Insertion</i></p> <p>Ann Majewicz, Jason Glasser, Rosemary Bauer, Stephen Belkoff, Simon Mears, Allison Okamura</p>
Demo 22	Demo	<p><i>Haptic Simulator for Osteosynthesis Screw Insertion</i></p> <p>Ann Majewicz, Jason Glasser, Rosemary Bauer (Johns Hopkins University), Stephen Belkoff, Simon Mears (Johns Hopkins Bayview Medical Center), and Allison Okamura (Johns Hopkins University)</p>
Poster 37	Paper	<p><i>Finding a Feature on a 3D Object through Single-Digit Haptic Exploration</i></p> <p>Kristina Huynh, Cara E. Stepp, Lee W. White, J. Edward Colgate, Yoky Matsuoka</p>
Poster 38	Extended Abstract	<p><i>Surface Waves and Spatial Localization in Vibrotactile Displays</i></p> <p>Lynette Jones, David Held, Ian Hunter</p>
Poster 39	Paper	<p><i>A Two-grid Iterative Approach for Real-time Haptics Mediated Interactive Simulation of Deformable Objects</i></p> <p>Venkata Arikatla, Suvranu De</p>
Poster 40	Extended Abstract	<p><i>Dilatant Fluid Based Tactile Display -Basic concept-</i></p> <p>Satoshi Saga, Koichiro Deguchi</p>
Poster 41	Paper	<p><i>Perceptual Thresholds for Single vs. Multi-Finger Haptic Interaction</i></p> <p>H. Hawkeye King, Regina Donlin, Blake Hannaford</p>
Poster 42	Paper	<p><i>Northeastern University Virtual Ankle and Balance Trainer</i></p> <p>Ye Ding, Maureen Holden, Mark Sivak, Brian Weinberg, Constantinos Mavroidis</p>
Poster 43	Extended Abstract	<p><i>Towards Physics-based Interactive Simulation of Electrocautery Procedures using PhysX</i></p>

Demo 23	Demo	<p>Zhonghua Lu, Ganesh Sankaranarayanan, Dhannanjay Deo, Dingfang Chen, Suvranu De</p> <p><i>Laparoscopic Adjustable Gastric Banding Simulator</i></p> <p>Ganesh Sankaranarayanan (Rensselaer Polytechnic Institute), Tansel Halic (Rensselaer Polytechnic Institute), Zhonghua Lu (Rensselaer Polytechnic Institute and Wuhan University of Technology), James D. Adair (Beth Israel Deaconess Medical Center and Harvard Medical School), Daniel B. Jones (Beth Israel Deaconess Medical Center and Harvard Medical School), and Suvranu De (Rensselaer Polytechnic Institute)</p>
Poster 44	Extended Abstract	<p><i>Tactile Mouse Using Friction Control</i></p> <p>Masaya Takasaki, Hiroyuki Kotani, Ryo Tamon, Takeshi Mizuno</p>
Poster 45	Extended Abstract	<p><i>Friction Measurements on a Large Area TPaD</i></p> <p>Nicholas Marchuk, J. Edward Colgate, Michael Peshkin</p>
Demo 24	Demo	<p><i>The Large Area TPaD</i></p> <p>Nicholas Marchuk, Dan Johnson, John Ware, J. Edward Colgate, and Michael A. Peshkin (Northwestern University)</p>
Poster 46	Extended Abstract	<p><i>A Basic Study on Tactile Displays Using Velvet Hand Illusion</i></p> <p>Yuji Kawabe, Abdullah Chami, Masahiro Ohka, Tetsu Miyaoka</p>
Poster 47	Paper	<p><i>Establishing Multimodal Telepresence Sessions using the Session Initiation Protocol (SIP) and Advanced Haptic Codecs</i></p> <p>H Hawkeye King, Julius Kammerl, Blake Hannaford, Eckehard Steinbach</p>
Poster 48	Paper	<p><i>Spatially Distributed Tactile Feedback for Kinesthetic Motion Guidance</i></p> <p>Pulkit Kapur, Mallory Jensen, Laurel J. Buxbaum, Steven A. Jax, Katherine J. Kuchenbecker</p>
Poster 49	Paper	<p><i>Modeling Pneumatic Bubble Displacements with Membrane Theory</i></p> <p>Louis Kratchman, Brent Gillespie, Jian Wen</p>
Poster 50	Paper	<p><i>A higher order polynomial reproducing radial basis function neural network (HOPR-RBFN) for real-time interactive simulations of nonlinear deformable bodies with haptic feedback</i></p> <p>Dhanannjay Deo, Suvranu De</p>
Demo 25	Demo	<p><i>T-Pod: A Novel Multi-modal Handheld Device with Fingertip Shear Feedback</i></p> <p>William Provancher, Charles Stewart, Markus Montandon, and Aaron Greer (University of Utah)</p>
Demo 26	Demo (with Paper)	<p><i>A New Fabric-based Softness Display</i></p> <p>Alessandro Serio, Matteo Bianchi, Enzo Pasquale Scilingo, and Antonio Bicchi (University of Pisa)</p>
Demo 27	Demo	<p><i>A Mutual Tactile Communication Device by Controlling Air Pressure</i></p> <p>Satuki Nakata, Yuki Hashimoto, and Hiroyuki Kajimoto (University of Electro-Communications)</p>
Demo 28	Demo	<p><i>Realistic Haptic Contacts and Textures for Tablet Computing</i></p>

Demo 28	Demo	<p><i>Realistic Haptic Contacts and Textures for Tablet Computing</i></p> <p>Joseph M. Romano and Katherine J. Kuchenbecker (University of Pennsylvania)</p>
Demo 29	Demo	<p><i>Novel 4-State Programmable Brakes in a 2 DOF Passive Haptic Display</i></p> <p>Yaroslav Tenzer, Brian L. Davies, and Ferdinando Rodriguez y Baena (Imperial College London)</p>
Demo 30	Demo	<p><i>Low-cost Microcontroller Solutions for Haptic Device Motor Control</i></p> <p>Ivan Figueroa, Alejandro Aguilar, and Joel Huegel (ITESM-Campus Guadalajara)</p>
Demo 31	Demo	<p><i>Angle Tracking and Location At-home System for Bi-manual Rehabilitation (ATLAS-BR) Smart Glove</i></p> <p>Mark Sivak, Avi Bajpai, Drew Lentz, Caitlyn Bintz, Andrew Clark, Jason Chrisos, Maureen K. Holden, and Constantinos Mavroidis (Northeastern University)</p>
Demo 32	Demo	<p><i>A Novel Haptic-based Interface for Training Interventional Radiology Procedures</i></p> <p>Chris Hughes and Nigel John (Bangor University)</p>
Demo 33	Demo (with Paper)	<p><i>Fiber-Optic Intubation Simulator with Haptic Feedback</i></p> <p>Ankur Baheti, Yuri Millo (Simulation and Training Environment Laboratory), and Jaydev P. Desai (University of Maryland, College Park)</p>
Demo 34	Demo	<p><i>High-Frequency Tactile Feedback for the da Vinci Surgical System</i></p> <p>Dorsey Standish, Jamie Gewirtz, William McMahan, Paul Martin, and</p>