

Time (CST/Beijing)	Time (EDT)	Time (CET)	Time (UTC)	Monday, March 22
2:45 PM - 3:00 PM	2:45 AM - 3:00 AM	7:45 AM - 8:00 AM	6:45 AM - 7:00 AM	<b>Opening Remarks</b>
3:00 PM - 5:00 PM	3:00 AM - 5:00 AM	8:00 AM - 10:00 AM	7:00 AM - 9:00 AM	<b>Tutorial: Integrated navigation solutions for new mobility applications</b> <i>Domenico Accardo</i>
5:00 PM - 5:30 PM	5:00 AM - 5:30 AM	10:00 AM - 10:30 AM	9:00 AM - 9:30 AM	Tutorial Q&A
5:30 PM - 6:00 PM	5:30 AM - 6:00 AM	10:30 AM - 11:00 AM	9:30 AM - 10:00 AM	Break/Open Discussion
6:30 PM - 7:30 PM	6:30 AM - 7:00 AM	11:30 AM - 12:30 PM	10:30 AM - 11:30 AM	Social Hour
7:30 PM - 9:30 PM	7:30 AM - 9:30 AM	12:30 PM - 2:30 PM	11:30 AM - 1:30 PM	<b>Tutorial: Navigation Aiding Techniques</b> <i>JP Laine</i>
9:30 PM - 10:00 PM	9:30 AM - 10:00 AM	2:30 PM - 3:00 PM	1:30 PM - 2:00 PM	Tutorial Q&A
10:00 PM - 12:00 AM	10:00 AM - 12:00 PM	3:00 PM - 5:00 PM	2:00 PM - 4:00 PM	<b>Tutorial: Innovative intelligence in MEMS Inertial Sensors</b> <i>Chris Kim</i>
12:00 AM - 12:30 AM (Tuesday)	12:00 PM - 12:30 PM	5:00 PM - 5:30 PM	4:00 PM - 4:30 PM	Tutorial Q&A
12:30 AM - 1:00 AM (Tuesday)	12:30 PM - 1:00 PM	5:30 PM - 6:00 PM	4:30 PM - 5:00 PM	Break/Open Discussion
1:00 AM - 3:00 AM (Tuesday)	1:00 PM - 3:00 PM	6:00 PM - 8:00 PM	5:00 PM - 7:00 PM	<b>Tutorial: Towards integrated optical gyroscopes</b> <i>Kerry Wahala</i>
3:00 AM - 3:30 AM (Tuesday)	3:00 PM - 3:30 PM	8:00 PM - 8:30 PM	7:00 PM - 7:30 PM	Tutorial Q&A
3:30 AM - 4:00 AM (Tuesday)	3:30 PM - 4:00 PM	8:30 PM - 9:00 PM	7:30 PM - 8:00 PM	Break/Open Discussion
4:00 AM - 6:30 AM (Tuesday)	4:00 PM - 6:30 PM	9:00 PM - 11:30 PM	8:00 PM - 10:30 PM	<b>A1L-A: MEMS Gyroscopes I USA</b> -Invited Talk: Jeff DeNatale, Teledyne Scientific -5053: Monocrystalline 4H Silicon CARBIDE-ON-Insulator Substrates for NAV-Grade Planar BAW Gyroscopes <i>Benoit Hamelin, Jeremy Yang, Anosh Daruwalla, Farrokh Ayazi</i> -5028: Vibration Immune, Long-Term Stable and Low Noise Synchronized Mass MEMS Gyroscopes <i>Igor Prikhodko, John Geen, Carey Merritt, Sam Zhang</i> -5054: Effect of EAM on Quality Factor and Noise in MEMS Vibratory Gyroscopes <i>Danmeng Wang, Andrei Shkel</i> -Q&A Panel
6:30 AM - 7:00 AM (Tuesday)	6:30 PM - 7:00 PM	11:30 PM - 12:00 AM	10:30 PM - 11:00 PM	Break/Open Discussion
Time (CST/Beijing)	Time (EDT)	Time (CET)	Time (UTC)	Tuesday, March 23
7:00 AM - 9:10 AM	7:00 PM - 9:10 PM	12:00 AM - 2:10 AM	11:00 PM - 1:10 AM (beg. Monday evening)	<b>B1L-A: Rate Integrating Gyroscopes - USA / China</b> -5037: A HIGH-Performance RATE-Integrating Hemispherical Resonant Gyros with 0.00753°/H Bias Instability <i>Yongmeng Zhang, Sheng Yu, Kechen Guo, Jiangkun Sun, Xuezhong Wu, Dingbang Xiao</i> -5057: Identification of Gain Mismatches in Control Electronics of Rate Integrating CVGs <i>Daryosh Vatanparvar, Andrei Shkel</i> -Invited Talk: Dr. Ryunosuke Gando, Toshiba Corp -Live Q&A
9:10 AM - 9:30 AM	9:10 PM - 9:30 PM	2:10 AM - 2:30 AM	1:10 AM - 1:30 AM	Break/Open Discussion
9:30 AM - 11:35 AM	9:30 PM - 11:35 PM	2:30 AM - 4:35 AM	1:30 AM - 3:35 AM	<b>B2L-A: MEMS Gyroscopes II Asia</b> -Invited Talk: High performance rate-integrated MEMS gyroscope is coming, Prof. Xiao Dingbang, National University of Defense Technology -5010: Theoretical Consideration of Mismatch Compensation for MEMS Resonator Having Unaligned Principle Axes <i>Takashihiro Tsukamoto, Shuji Tanaka</i> -5014: The Parametric Amplification in MEMS Gyroscopes Based on Triple Resonant Frequency Signal <i>Kai Wu, Kuo Lu, Qingsong Li, Hao Zhang, Ming Zhuo, Dingbang Xiao, Xuezhong Wu</i> -5015: MODE-Matched MULTI-Ring Disk Resonator Using Single Crystal (100) Silicon <i>Jianlin Chen, Takashihiro Tsukamoto, Shuji Tanaka</i> -Q&A Panel
11:35 AM - 12:00 PM	11:35 PM - 12:00 AM	4:35 AM - 5:00 AM	3:35 AM - 4:00 AM	Break/Open Discussion
4:00 PM - 6:35 PM	4:00 AM - 6:35 AM	9:00 AM - 11:35 AM	8:00 AM - 10:35 AM	<b>B3L-A: MEMS Gyroscopes III Europe</b> -Invited Talk (TBD) -5017: Exploiting Nonlinearities for Frequency-Matched MEMS Gyroscopes Tuning <i>Jacopo Marconi, Giacomo Bonaccorsi, Daniele Giannini, Luca Falorni, Francesco Braghin</i> -5038: Digital Control of MEMS Gyroscopes: a Robust Approach <i>Fabrizio Saggini, Cécile Pernin, Anton Korniienko, Gérard Scorletti, Christophe Le Blanc</i> -5046: 600 $\mu$ mps/√Hz, 1.2 mm <sup>2</sup> MEMS Pitch Gyroscopes <i>Marco Gadola, Marc Sansa Perna, Monica Allieri, Philippe Robert, Thierry Verdoy, Audrey Berthelot, Giacomo Langfelder</i> -Live Q&A
6:35 PM - 7:00 PM	6:35 AM - 7:00 AM	11:35 AM - 12:00 PM	10:35 AM - 11:00 AM	Break/Open Discussion
7:00 PM - 9:35 PM	7:00 AM - 9:35 AM	12:00 PM - 2:35 PM	11:00 AM - 1:35 PM	<b>B4L-A: MEMS Inertial Europe</b> -Invited Talk (TBD) -5005: Experimental Investigation of Parametric Evasion Properties of Resonant Sensors Using Electrostatic Gap-Closing Actuation <i>Jerome Juillard, Antonio Somma, Alexis Brenes</i> -5007: Analysis and Compensation of Cross-Axis Sensitivity in Low-Cost MEMS Inertial Sensors <i>Tobias Hiller, Lukas Blocher, Milos Vujanovic, Zsigmond Pentek, Alexander Buhmann, Hubert Roth</i> -5048: Finding the Critical Impact Energy for Micro Debris Generation in MEMS Inertial Sensors <i>Leonardo Gaffuri Pagan, Luca Guerini, Luca Falorni, Patrick Fedeli, Giacomo Langfelder</i> -Live Q&A
9:35 PM - 10:00 AM	9:35 AM - 10:00 AM	2:35 PM - 3:00 PM	1:35 PM - 2:00 PM	Break/Open Discussion
11:00 PM - 1:55 AM	11:00 AM - 1:55 PM	4:00 PM - 6:55 PM	3:00 PM - 5:55 PM	<b>B5L-A: Accelerometers - Europe / USA</b> -5029: Resonant Accelerometer with Compliant Parallel Motion Linkage Force Amplification Mechanism <i>Omer Halevy, Stella Lulinsky, Slava Krylov</i> -5030: Swap Reduction for High Dynamic Navigation Grade Accelerometer Based on Quartz VBA Technology <i>Rachid Taibi, Olivier Jolly, Thomas Kerrien, Pascal Labarthe, Karl Aubry, Gauthier Le Bihan, Stéphanie Michel</i> -5036: A 10 NANO-G/RT-HZ Resonant MEMS Accelerometer Employing Anti-Aliasing Control <i>Milind Pandit, Guillermo Sobreviela, Callisto Pili, Philipp Steinmann, Douglas Young, Chun Zhao, Colin Baker, Ashwin ...</i> -5021: Megahertz Bandwidth Bulk Micromachined Optomechanical Accelerometer With Fiber Optical Interconnects <i>Daniel Dominguez, Lisa Hackett, Michael Miller, Jennifer Restrepo, Katya Casper, Matt Eichenfield</i> -5045: Method for the Synchronization of Data Recorders by Coupling Accelerometer Data <i>José Ricardo Scarpari, Camila Deolindo, Maria Adelia Aratanha, Mauricio Ribeiro, Elisa Kozasa, Daisy Hirata, José E. ...</i> -Live Q&A
1:55 AM - 2:30 AM	1:55 PM - 2:30 PM	6:55 PM - 7:30 PM	5:55 PM - 6:30 PM	Break/Open Discussion
3:00 AM - 6:05 AM	3:00 PM - 6:05 PM	8:00 PM - 11:05 PM	7:00 PM - 10:05 PM	<b>B6L-A: Atomic Sensors - Europe / USA</b> -Invited Talk: Inertial Sensing at DSTL -5060: The Development of High Data Rate Atom Interferometric Gravimeter (HiDRAIG) for Gravity Map Matching <i>Benjamin Adams, Calum Marcre, Mani Entezami, Kevin Ridley, Archie Kubba, Yu-Hung Lien, Sachin Kinge, Kai Bongs</i> -Invited Talk: Packaging for Cold Atom Sensors -5047: Cold Atom Interferometers Based on Diffractive Optics and Integrated Photonics <i>Jongmin Lee</i> -5022: Scale-Factor Stability Control Technique for Closed-Loop All-Fiber Interferometric Optical Gyroscopes <i>Michal Skalský, Jiří Fialka, Ladislav Kopečný, Zdeněk Havránek</i> -Live Q&A
6:05 AM - 6:30 AM	6:05 PM - 6:30 PM	11:05 PM - 11:30 PM	10:05 PM - 10:30 PM	Break/Open Discussion

Time (CST/Beijing)	Time (EDT)	Time (CET)	Time (UTC)	Wednesday, March 24
7:00 AM - 10:00 AM	7:00 PM - 10:00 PM (Tuesday)	12:00 AM - 3:00 AM	11:00 PM - 2:00 AM (beg. Tuesday evening)	<b>B7L-A: Aided Navigation - Asia / USA</b> -5051: Sensor Fusion to Improve State Estimate Accuracy Using Multiple Inertial Measurement Units <i>Ujjval Patel, Imraan Faruque</i> -5012: Simulation Design of Thermopiles and Magnetometer Aided INS/GPS Navigation System for UAV Navigation <i>Atsumi Toda, Yoshikazu Koike</i> -5004: Performance Analysis of 3D NDT Scan Matching for Autonomous Vehicles Using INS/GNSS/3D LiDAR-SLAM Integration Scheme <i>Surachet Srinara, Chi-Ming Lee, Syun Tsai, Guang-Je Tsai, Kai-Wei Chiang</i> -5024: FaSTER: Fast, Stable, Expandable and Reliable Radio Map for Indoor Localization <i>Md Abdulla Al Mamun, David Vera Anaya, Mehmet Rasit Yuce</i> -Invited Talk: Magnetic Navigation Aiding <i>Aaron Canciani</i> -Live Q&A
10:00 AM - 10:30 AM	10:00 PM - 10:30 PM	3:00 AM - 3:30 AM	2:00 AM - 2:30 AM	Break/Open Discussion
8:00 PM - 10:30 PM	8:00 AM - 10:30 AM	1:00 PM - 3:30 PM	12:00 PM - 2:30 PM	<b>C11-A: Human Activity Recognition - Europe / USA</b> -5020: Towards the automatic data annotation for human activity recognition based on wearables and BLE beacons <i>Florenc Demrozi, Marin Jereghi, Graziano Pravadelli</i> -5011: Insole-Based Real-Time Gait Analysis: Feature Extraction and Classification <i>Arif Reza Anwar, Damla Arifoglu, Michael Jones, Michael Vassallo, Hamid Bouchachia</i> -5043: Trains Detection Using State of Polarization Changes Measurement and Convolutional Neural Networks <i>Petr Dejdar, Vojtech Myska, Petr Munster, Radim Burget</i> -5052: Improved Sensor Based Human Activity Recognition via Hybrid Convolutional and RECURRENT Neural Networks <i>Sonia Perez-Gamboa, Qingquan Sun</i> -Live Q&A
10:30 PM - 11:00 PM	10:30 AM - 11:00 AM	3:30 PM - 4:00 PM	2:30 PM - 3:00 PM	Break/Open Discussion
11:00 PM - 1:05 AM	11:00 AM - 1:05 PM	4:00 PM - 6:05 PM	3:00 PM - 5:05 PM	<b>C2L-A: Industry MEMS Inertials - Europe / USA</b> -5006: Purely Inertial Navigation with a Low-Cost MEMS Sensor Array <i>Lukas Blocher, Wolfram Mayer, Marco Arena, Dusan Radovic, Tobias Hiller, Joachim Gerlach, Oliver Bringmann</i> -5056: Development of a Navigation-Grade MEMS IMU <i>Burgess Johnson, Curt Albrecht, Todd Braman, Kevin Christ, Patrick Duffy, Dan Edean, Markus Gnerlich, John Reinke</i> -5049: POLARIS – A Low-Cost MEMS Fabrication Platform for Nav-Grade Inertial Sensors <i>David Lin, Robert Macdonald, Dorin Calbaza, Jeremy Popp, Tammy Johnson, Emad Andarawis, Marco Aimi</i> -Live Q&A
1:05 AM - 1:30 AM	1:05 PM - 1:30 PM	6:05 PM - 6:30 PM	5:05 PM - 5:30 PM	Break/Open Discussion
Time (CST/Beijing)	Time (EDT)	Time (CET)	Time (UTC)	Thursday, March 25
10:00 AM	10:00 PM (Wednesday)	3:00 AM	2:00 AM	Student Awards and 2022 Promo Asia
4:20 PM - 5:10 PM	4:20 AM - 5:10 AM	9:20 AM - 10:10 AM	8:20 AM - 9:10 AM	<b>D1L-A: Late News Asia</b> -5064: A Technique for Modeling and Simulating Transistor Based MEMS Sensors <i>Pramod Martha, Anju Sebastian, V Seena, Naveen Kadayinti</i> -5065: A 3-D Capacitive-Detection Electrode for a Single Gold Proof-Mass Three-Axis MEMS Accelerometer <i>Takashi Ichikawa, Akihiro Uchiyama, Kohei Shibata, Shinichi Iida, Sangyeop Lee, Noboru Ishihara, Katsuyuki Machida, K...</i>
5:10 PM - 5:30 PM	5:10 AM - 5:30 AM	10:10 AM - 10:30 AM	9:10 AM - 9:30 AM	Break/Open Discussion
11:00 PM	11:00 AM	4:00 PM	3:00 PM	Student Awards and 2022 Promo Europe / USA
11:10 PM - 12:35 AM	11:10 AM - 12:35 PM	4:10 PM - 5:35 PM	3:10 PM - 4:35 PM	<b>D2L-A: Late News USA</b> -5066: A Sub-Micro-G Resolution Frequency-Modulated Piezoelectric In-plane Accelerometer <i>Seungyong Shin, Anosh Daruwalla, Zhenming Liu, Farrokh Ayazi</i> -5067: A NOVEL SPRING DISK RESONATOR GYROSCOPE FOR MAXIMIZING Q/F <i>Christopher Cameron, Dustin Gerrard, Janna Rodriguez, Yushi Yang, Eldwin Ng, Thomas Kenny</i> -5069: Microfabricated Optically Pumped Gradiometer with Uniform Buffer Gases <i>Austin Parrish, Radwan Noor, Andrei Shkel</i>
12:35 AM (Friday)	12:35 PM	5:35 PM	4:35 PM	Closing Remarks
1:00 AM (Friday)	1:00 PM	6:00 PM	5:00 PM	Open Discussion