

Symposium Gyro Technology 2010

PROGRAMME

Tuesday, September 21, 2010

08:00	Registration
Opening Session:	200 years of Gyro Technology
09:00	Welcome
09:15	First Demonstration of Gimbal Mounted Gyroscope by J. G. F. Bohnenberger <i>J.-F. Wagner, A. Trierenberg, (Universität Stuttgart, Stuttgart, GERMANY)</i>
09:30	The Design and On-orbit Performance of the Relativity Mission Gyroscopes <i>S. Buchman</i> <i>(W. W. Hansen Experimental Physics Laboratory, Stanford University, Stanford, USA)</i>
10:00	Advances in the Geodetic Application of the large Ring Laser G <i>K.U. Schreiber, T. Klügel, J.-P. Wells, J. Holdaway, A. Gebauer</i> <i>(Technische Universität München, Forschungseinrichtung Satellitengeodäsie, München, GERMANY)</i>
10:30	Break
Session 1:	MEMS Gyros (CHAIRMAN: W. Geiger)
10:45	Test Results for the GYPRI Micromechanical Gyro <i>J. Leclerc, C. Kergueris, (Tronics Microsystems, FRANCE)</i>
11:15	SAR500 – A novel High-Precision Gyroscope <i>B. Blixhavn, D. Lapadatu, R. Holm, T Kvisteroy, (Sensoror Technologies, Horten, NORWAY)</i>
11:45	PinPoint™ – The new lost cost MEMS Gyroscope from Silicon Sensing <i>M. Durston, (Atlantic Inertial Systems, Devon, UNITED KINGDOM)</i>
12:15	Lunch Break
Session 2:	MEMS Technology (CHAIRMAN: W. Auch)
14:00	A Novel MEMS IMU Made of Single Mass 3-Axes Accelerometer and a Single Mass 3-Axes Gyro with Capacitive Actuating and Readout <i>B. Sun</i> <i>(Cape Peninsula University of Technology, Cape Town, SOUTH AFRICA)</i>
14:30	Breakthrough in High-End MEMS Accelerometers <i>S. Gonseth, P. Zwahlen, B. Dutoit, O. Dietrich, G. Perregaux, R. Frosio, F. Rudolf</i> <i>(Colibrys SA, Neuchatel, SWITZERLAND)</i>
15:00	Quadrature Mechanisms of in-plane and out-of-plane sensing MEMS Rate Gyroscopes <i>J.-T. Liewald, B. Kuhlmann, T. Balslink, Y. Manoli</i> <i>(Robert Bosch GmbH Reutlingen, Reutlingen, GERMANY)</i>
15:30	Break
Session 3:	Application of MEMS IMUs (CHAIRMAN: W. Schröder)
16:00	Closed Loop Velocity Control for an AGV Equipped with a Modified Voith-Schneider-Drive <i>A. Kamaqaew, T. Kirks, M. ten Hompel</i> <i>(Fraunhofer Institut für Materialfluss und Logistik, Dortmund, GERMANY)</i>
Session 4:	High Performance Fiber Optic Gyroscope (CHAIRMAN: W. Schröder)
16:30	New achievements in the development of sub 0.01 deg/rt-hr FOG Gyro <i>A. Arbel, I. Engel, H. Sharaabi</i> <i>(AI Cielo Ltd, Jerusalem, ISRAEL)</i>
17.00 - 22.30	Social Event: Sightseeing Tour and Evening Dinner

Wednesday, September 22, 2010

Session 5:	Optical Gyros (CHAIRMAN: M. Perlmutter)
08:30	Research on Technological Development of Miniature Tri-Axis FOG <i>J. Wu, X. Zheng, Y. Wu, X. He</i> <i>(Automatic Control Equipment Institute of Beijing, Beijing, CHINA)</i>
09:00	A Novel 3-D Model for Thermal Transient Effects in Fiber Gyro Coils <i>M. Li, X. Zhao</i> <i>(Tianjin Navigation Instruments Research Institute, Tianjin, CHINA)</i>
09:30	Performance Evaluation of a Solid-State Ring Laser Gyro <i>S. Schwartz, F. Guty, G. Feugnet, J.-P. Pocholle</i> <i>(THALES Research and Technology France, Palaiseau Cedex, FRANCE)</i>
10:00	Break
Session 6:	High - Precision Applications (CHAIRMAN: D. Loukianov)
10:30	The Results of the Development of an ESG for Strapdown Inertial Attitude Reference Systems of Orbital Spacecrafts <i>B.Ye. Landau, S.L. Levin, S.G. Romanenko</i> <i>(Concern CSIR Elektropribor, St. Petersburg, RUSSIA)</i>
11:00	Hemispherical Resonator Gyro and North Finding <i>Y. Follippe, L. Rosellini</i> <i>(SAGEM Défense Sécurité, FRANCE)</i>
Session 7:	Structural Monitoring with Gyros (CHAIRMAN: E. von Hinüber)
11:30	The Application of Fiber Optic Gyros for the Monitoring of Mechanical Structures <i>G. Dörner, A. Rasch, K.U. Schreiber, A. Carr</i> <i>(Northrop-Gruman Litef GmbH, Freiburg, GERMANY)</i>
12:00	Lunch Break
Session 8:	Algorithms for Inertial Systems (CHAIRMAN: J.F. Wagner)
14:00	Improved Coning Algorithm for Fiber-Optic Gyrocompass <i>G. Wei, B. Yueyang, Y. Zhang</i> <i>(College of Automation, Harbin Engineering University, Harbin, CHINA)</i>
14:30	Cooperative UAV-Navigation-Aiding based on UGV Vision Systems <i>J. Seibold, N. Frietsch, J. Gut, O. Meister, G. Trommer</i> <i>(Institute of Systems Optimization, Karlsruhe Institute of Technology, Karlsruhe, GERMANY)</i>
15:00	Break
15:30	Performance Evaluation of MEMS IMU-Based Position and Orientation Systems using Simulation <i>V. Varavva, B. Reid, J. Hutton</i> <i>(Applanix Corporation, Ontario, CANADA)</i>
16:00	Measuring the Earth's Rotation Rate using a Low-Cost MEMS Gyroscope <i>L. I. Iozan, J. Collin, O. Pekkalin, J. Hautamäki, J. Takala, C. Rusu</i> <i>(Technical University of Cluj-Napoca, Cluj-Napoca, ROMANIA)</i>