

Tuesday 11th June 2013

0900-1000 ***Keynote Speaker***

1000-1050 ***Standardisation 1 (Long Papers)***

- (90) Steve Parkes, Chris McClements, Albert Ferrer, Alberto Gonzalez; SPACEFIBRE: MULTIPLE GBIT/S NETWORK TECHNOLOGY WITH QOS, FDIR AND SPACEWIRE PACKET TRANSFER CAPABILITIES
- (51) Clifford Kimmerly, Stephen Belvin; SPACEFIBRE QUALITY OF SERVICE AND NETWORK ROUTING
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1110-1225 ***Standardisation 2 (Long Papers)***

- (52) Evgeny Yablokov, Yuriy Sheynin, Elena Suvorova, Alexander Stepanov, Tatiana Solokhina, Yaroslav Petrichcovitch, Alexander Glushkov, Ilia Alekseev; GIGASPACEWIRE - GIGABIT LINKS FOR SPACEWIRE NETWORKS
- (45) Sergey Gorbachev, Ludmila Koblyakova, Yuriy Sheynin, Alexander Stepanov, Elena Suvorova, Martin Suess; DISTRIBUTED INTERRUPT SIGNALLING FOR SPACEWIRE NETWORKS
- (50) Clifford Kimmerly; RUNNING DISPARITY MANAGEMENT FOR DC-BALANCING A 10-BIT CODE SET
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1345-1525 ***Test & Verification 1 (Long Papers)***

- (53) Roger Peel, Paul Walker, Barry Cook, David Jameux; DETERMINING THE BEHAVIOUR OF BLACK-BOX SPACEWIRE COMPONENTS
- (22) Yuexing Li, Xiaojuan Li, Rui Wang, Yong Guan, Jie Zhang, Xiaoyu Song; PROBABILISTIC ANALYSIS OF SPACEWIRE COMMUNICATION PROCESSES
- (84) Pete Scott, Alan Spark, Paul Crawford, Steve Parkes; MARGIN TESTING OF SPACEWIRE DEVICES
- (23) Ping Luo, Xiaojuan Li, Yong Guan, Rui Wang, Jie Zhang, Xiaoyu Song; MODELING AND VERIFICATION OF SPACEWIRE INTERFACES BY TIMED AUTOMATA
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1545-1700 ***Onboard Equipment & Software (Long Papers)***

- (86) Bruce Yu, Steve Parkes, John Franklin, Chris McClements, Pete Scott, David Dillon; HIGH PROCESSING POWER DIGITAL SIGNAL PROCESSOR WITH SPACEWIRE AND SPACEFIBRE INTERFACES
- (40) Mitsutaka Takada, Hiroaki Takada, Yang Chen, Takayuki Yuasa, Tadayuki Takahashi, Masaharu Nomachi; DEVELOPMENT OF SOFTWARE PLATFORM SUPPORTING A PROTOCOL FOR GUARANTEEING THE REAL-TIME PROPERTY OF SPACEWIRE

- (71) Björn Osterloh, Andre Schäfer, Harald Michalik; ADVANCED SPACEWIRE CORE WITH EXTERNAL CLOCK RECOVERY PHY AND PROGRAMMABLE PROTOCOL PROCESSING

Wednesday 12th June 2013

0900-1055 *Components 1 (Long Papers+1 short)*

- (69) Sandi Habinc, Jonas Ekergrarn, Martin Simlastik, Fredrik Ringhage, Steven Redant, Geert Thys, Jagadeesa Das Arul Mahesh, Martin Suess; 18X SPACEWIRE ROUTER BASED ON THE DARE 180NM LIBRARY
- (83) Nicolas Ganry; ATMEL'S NEW RAD-HARD SPARC V8 PROCESSOR EMBEDDING STATE-OF-THE-ART SPACEWIRE
- (4) Jennifer Larsen, Rob Ciccariello; RELIABILITY STUDY OF OVER/UNDER VOLTAGE FOR LVDS PHYSICAL LAYER OF SPACEWIRE
- (65) Fredrik Stuesson, Sandi Habinc, Jørgen Ilstad, Jan Wouters, Steve Redant; EUROPEAN LVDS TRANSCEIVER DEVELOPMENT
- (48) Volodymyr Burkhay, André Rocke, César Boatella Polo, Gianluca Furano, Farid Guettache, Jørgen Ilstad, Giorgio Magistrati; RADIATION-TESTED EXTENDED COMMON MODE LVDS COMPONENTS

1115-1205 *Components 2 (Long Papers)*

- (72) R. Trautner; NEW DSP BASED IP, DEVICES AND SYSTEMS FOR SPACE APPLICATIONS FEATURING SPW / SPFI INTERFACES
- (88) Steve Parkes, Chris McClements, Albert Ferrer, Alberto Gonzalez, Ran Ginosar, Tuvia Liran, Dov Alon, Michael Goldberg, Gal Sokolov, Gennady Burdo, Nimrod Blatt, Paul Rastetter, Milos Krstic, Alberto Crescenzo; A RADIATION TOLERANT SPACEFIBRE INTERFACE DEVICE

1205-1235 *Onboard Equipment & Software (Short Papers)*

- (17) Viacheslav Grishin, Petr Eremeev, Sergey Gorbunov, Tatiana Solokhina, Alexander Glushkov, Ilya Alekseev, Leonid Menshenin, Jaroslav Petrichkovich, Yuriy Sheynin, Suvorova Elena, Bernard Berne; PROTOTYPE OF ONBOARD MASS STORAGE DEVICE BASED ON SPACEWIRE AND SPACEFIBRE INTERFACES
- (29) Michele De Meo, Giovanni Saldi, Guido Rosani, Wahida Gasti, Jeff Noyes, James Windsor, Joachim Poeckentrup, Reinhard Eilenberger; BEPICOLOMBO SOLID STATE MASS MEMORY EMPLOYING SPACEWIRE

1355-1510 *Networks & Protocols (Short Papers)*

- (37) Dmitry Raszhivin, Yuriy Sheynin, Alexey Abramov; DETERMINISTIC SCHEDULING OF SPACEWIRE DATA STREAMS

- (39) Qiang Wan, [Baokang Zhao](#), Bo Liu, Chunqing Wu; A NETWORK DEVICE DRIVER FRAMEWORK FOR SPACEWIRE
- (62) [Alexey Syschikov](#), Elena Suvorova, Yuriy Sheynin, Nadezhda Matveeva, Boris Sedov, Dmitry Razhivin; TOOLSET FOR SPACEWIRE NETWORKS DESIGN AND CONFIGURATION
- (13) [Qiang Zhou](#), Chunming Zhang, Hengqing Lin; DELAY GUARANTEE FOR REAL-TIME MESSAGE IN SPACEWIRE-D NETWORK
- (61) [Nadezhda Matveeva](#), Elena Suvorova, Valentin Olenev, Irina Lavrovskaya; SPACEFIBRE QUALITY OF SERVICE FEATURES SUPPORT IN A NETWORK LEVEL
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1510-1640 *Poster Presentations*

Thursday 13th June 2013

0900-0945 *Standardisation (Short Papers)*

- (79) [Mathias Nickl](#), Stefan Joerg, Thomas Bahls, Barry M. Cook; TOWARDS HIGH-SPEED SPACEWIRE LINKS
- (30) [Takahiko Masuzaki](#), Minoru Nakamura, Tetsuro Kato, Yasunori Ido, Toru Sasaki; IMPLEMENTATION AND INTEROPERABILITY TESTS OF SPACEFIBRE
- (63) [Yu Otake](#), Kohei Hosokawa, Yasuhiro Sota, Takahiko Tanaka, Hiroki Hihara; PERFORMANCE EVALUATIONS AND PROPOSAL TO IMPROVE NEXT-GENERATION SPACEFIBRE PROTOCOL
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0945-1045 *Test & Verification (Short Papers)*

- (6) [G. Fernández Berzosa](#), P. Rodriguez Perochena, A. Pérez Gómez, R. Regada Álvarez, L. R. Berrojo Valero, L. Basanta Alonso; SPACEWIRE INTEROPERABILITY CHARACTERISATION
- (66) [Brice Dellandrea](#), David Jameux; MOST: MODELING OF SPACEWIRE TRAFFIC
- (76) [Stephen Mudie](#), Martin Dunstan, Steve Parkes; SPACEWIRE EGSE: REAL-TIME INSTRUMENT SIMULATION IN A DAY
- (85) [Albert Ferrer Florit](#), Alberto G. Villafranca, Chris McClements, Steve Parkes; STAR-FIRE: - SPACEFIBRE DIAGNOSTIC INTERFACE AND ANALYSER
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1105-1235 *Missions & Applications (Short Papers)*

- (54) [Paul Norridge](#), David Pecover, Joachim Poeckentrup, Stefan Thürey, Wahida Gasti, James Windsor, Michele de Meo; SPACEWIRE IN SOLAR ORBITER

- (16) Christophe Cara, Modeste Donati, Eric Doumayrou, Michel Lortholary, Frederic Pinsard; FAST READOUT CCD CAMERA WITH HIGH PERFORMANCE SPACEWIRE TO PCI EXPRESS ACQUISITION BOARD
- (18) Toru Sasaki, Itao Shoji, Hisayoshi Kurosawa, Tetsuro Kato, Satoshi Ichikawa, Takashi Okamoto, Taeko Seki, Mami Abe; APPLICATION OF SPACEWIRE TO NON-VOLATILE DATA RECORDER
- (35) Hiroki Hihara, Koutarou Moritani, Tetsuya Masuda, Ryu Funase, Hisashi Otake, Tatsuaki Okada; INTELLIGENT NAVIGATION SYSTEM WITH SPACEWIRE FOR ASTEROID SAMPLE RETURN MISSION HAYABUSA2
- (73) Alain Girard; SPACEWIRE NETWORK IN MTG SATELLITES
- (44) David Juliusson; THE SWIFT CODEC DEVELOPMENT
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1355-1510 *Components (Short Papers)*

- (75) Chris McClements, Steve Parkes, Albert Ferrer, Alberto Gonzalez-Villafranca; HIGH PERFORMANCE SPACEWIRE RMAP/DMA ENGINE FOR THE CASTOR MICROPROCESSOR
- (70) Jonas Ekergran, Jan Andersson, Andreas Larsson, Daniel Hellström, Magnus Hjorth, Roland Weigand; NEXT GENERATION MICROPROCESSOR FUNCTIONAL PROTOTYPE SPACEWIRE ROUTER VALIDATION RESULTS
- (49) G. Baterina, Y.Moghe, P. Francois, A. Senior; GALVANIC ISOLATION OF SPACEWIRE LINKS
- (41) Gilles Rouchaud, Nigel Kellet; LOW MASS SPACEWIRE AND COPPER BASED SPACEFIBRE LINKS
- (91) Keir Boxshall, Alan Senior, Sanjay Sharma; A MODULAR CONNECTOR FOR SPACEWIRE BACKPLANES
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1530-1710 *Networks & Protocols (Long Papers)*

- (27) Valentin Olenev, Irina Lavrovskaya, Ilya Korobkov; SPACEWIRE-RT/SPACEFIBRE SPECIFICATION AND MODELING
- (46) Carlos Quiroz, Sandra G. Dykes, Paul Wood, Allison Bertrand; OPNET MODELER® CO-SIMULATION FOR MODELING SPACEWIRE PLUG-AND-PLAY PROTOCOLS
- (92) Martin Suess, Felix Siegle; SPACEWIRE TIME CODE LATENCY AND JITTER
- (78) Sandi Habinc, Anandhavel Sakthivel, Martin Suess; SPACEWIRE – TIME DISTRIBUTION PROTOCOL

Poster Presentations

- (2) Christophe Delay, Stephane Humbert; 1 TBITS OF DATA SERVICED BY SPW
- (3) Fabien Vigeant; SPACEWIRE VALIDATION TEST PLAN & CONFORMANCE TEST BENCH PROTOTYPING
- (7) Zhou Yuan, Li Li, Zhang Jian-hua, Cui Wan-zhao, Zhao Jun-yi; USING SPACEWIRE IN A INTELLECTUALIZED DATA PROCESSOR
- (12) Qiang Zhou, Lan Zhang, Hengqing Lin; REAL-TIME PERFORMANCE SIMULATION OF SPACEWIRE ROUTER WITH POLLING ARBITRATION SCHEMES
- (14) Chen Xiaomin, Guo Lin, Sun Huixian; THE GENERAL SITUATION OF SPACEWIRE RESEARCH IN CHINA
- (15) Guo Lin, Sun Huixian, Chen Xiaomin; A LOW-POWER SPACEWIRE CODEC IP CORE
- (19) Yupeng Zhang, Zhiping Shi, Yong Guan, Xiaojuan Li, Jie Zhang; FORMAL VERIFICATION FOR SPACEWIRE DECODING BY APPLYING THEOREM PROVING
- (20) Nadezhda Matveeva, Elena Suvorova; LATENCY JITTER ESTIMATION AND CONTROL IN SPACEWIRE NETWORKS
- (24) Dmitri Skok, Sergey Kondratenko, Aleksey Zaicev, Alexander Glushkov, Tatiana Solokhina, Vladimir Gusev, Jaroslav Petrichkovich; PHY COMPONENTS FOR PERSPECTIVE SPACEWIRE-2 INTERFACE PROTOTYPING AND EVALUATING
- (25) Takayuki Yuasa, Tadayuki Takahashi, Masaharu Nomachi, Iwao Fujishiro, Fumio Hodoshima; SPACEWIRE TRAFFIC GENERATOR: A HIGHLY-SCALABLE PACKET GENERATION DEVICE
- (32) Yang Chen, Mitsutaka Takada, Ryo Kurachi, Hiroaki Takada; A SCHEDULING METHOD OF RMAP PACKETS FOR SPACEWIRE-D
- (36) Satoko Kawakami, Yasuhiro Takeda, Hiroki Hihara, Tetsuya Masuda, Masatoshi Ebara, Ryu Funase, Takahiro Yamada; REAL-TIME DATA RECORDING SYSTEM WITH SPACEWIRE FOR ASTEROID SAMPLE RETURN MISSION HAYABUSA2
- (47) Aleksey Sakharov, Dmitri Skok, Vladimir Gusev, Tatiana Solokhina, Jaroslav Petrichkovich, Yuriy Sheynin, Elena Suvorova; RADIATION TOLERANT SPACEWIRE REMOTE TERMINAL CONTROLLER ASIC (RMR-02P)
- (57) Artur Eganyan, Elena Suvorova, Yuriy Sheynin, Alexey Khakhulin, Igor Orlovsky; DCNSIMULATOR – SOFTWARE TOOL FOR SPACEWIRE NETWORKS SIMULATION
- (58) Ronald Castillo, Javier Almena, Alberto Carrasco, Aaron Montalvo, Oscar Gutiérrez, Manuel Prieto, Sebastián Sánchez; IMPLEMENTATION AND USE OF SPACEWIRE IN THE EPD INSTRUMENT FOR SOLAR ORBITER
- (59) Koblyakova Ludmila, Oleynikova Stanislava, Khramenkova Ksenia; NETWORK MANAGEMENT ALGORITHM FOR HIGH SPEED ONBOARD SYSTEMS

- (64) Masaharu Nomachi, Shuhei Ajimura, Takayuki Yuasa, Tadayuki Takahashi, Iwao Fujishiro, Fumio Hodoshima; SPACEWIRE BACKPLANE FOR GROUND EQUIPMENT
- (67) Adrian Belger, Frank Bubenhagen, Björn Fiethe, Harald Michalik, Holger Michel; A SOFTWARE SOCWIRE PROTOCOL HANDLER FOR NOC MANAGEMENT
- (68) Sandi Habinc, Anandhavel Sakthivel, Jonas Ekergrarn, Arvid Björkengren, Richard Pender, Sven Landström, Federico Cordero, Jose Mendes, Tra-Mi Ho, Kai Stohlmann; MASCOT ON-BOARD COMPUTER BASED ON SPACEWIRE LINKS
- (77) S. Jörg, M. Nickl, T. Bahls, S. Strasser; SPACEWIRE-HS HOST ADAPTER – AN FPGA BASED PCI EXPRESS DEVICE FOR VERSATILE HIGH-SPEED CHANNELS
- (81) David Jameux, Antonis Tavoularis; SPACEWIRE STANDARD REVISION
- (82) Stuart Mills, Alex Mason, Chris McClements, David Paterson, Iain Martin, Steve Parkes; DEVELOPING SPACEWIRE DEVICES WITH STAR-DUNDEE TEST AND DEVELOPMENT EQUIPMENT