

| Room | A (9-A) | C (904) | D (905) |
|---------------|--|---------|---------|
| Nov. 26, 2017 | | | |
| 15:00 ~ 17:00 | Registration and Welcome Reception at Room Maple, 3rd Floor, Tokyo Bay Ariake Washington Hotel | | |

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| Nov. 27, 2017 | | | |
| 8:20 ~ | Registration in front of Room 901 | | |
| 10:00 ~ 18:00 | Exhibition at Room E (906) Table Top Exhibition | | |
| 14:10 ~ 16:50 | Tutorial 1 at Room B (902) Composites Manufacturing: Increased Rate Production Processing and Materials for Automotive and Aerospace Applications Instructor: Dr. Scott W. Beckwith SAMPE-Global Technical Director / BTG Composites, Inc. - President | | |

| | | | |
|---------------|--|--|---|
| Session | Plenary Lecture 1 | | |
| Chair | Yutaka Iwahori, JAXA | | |
| 9:00 ~ 10:00 | Opening Address Yutaka Iwahori, Symposium Chair of JISSE-15 | | |
| | PL01 | Katie E.G. Thorp, Ph.D. SAMPE Global President AFRL | |
| 10:00 ~ 10:20 | Coffee Break | | |
| Session | CAE | SIP-1 | Student Paper Award-1 |
| Chair | Shinji Nishiwaki, Kyoto University | Masahiro Arai, Nagoya University | Yasuo Hirose, Kanazawa Institute of Technology |
| 10:20 ~ 10:40 | 1A01 | 1C01 | 1D01 |
| | Introduction of the Latest Optimization Techniques for Composite Materials Daisei Abe Altair Engineering Ltd. | Recent Development of "Innovative Aircraft Polymer Matrix Composites (iAPMC)" Project in SIP- SM4I Japan Akira Hamamoto, Nobuo Takeda TJCC (UTokyo-JAXA Center for Composites) Graduate School of Frontier Sciences, The University of Tokyo | Effects of the Tape Thickness on the Mechanical Properties of Chopped Carbon Fiber Tape Reinforced Thermoplastics Yuto Nakashima*, Shinichiro Yamashita*, Hirofumi Suganuma*, Jun Takahashi*, Kazumasa Kawabe**, Tetsuhiko Murakami** *Department of Systems Innovation, School of Engineering, The University of Tokyo, **Industrial Technology Center of Fukui Prefecture |
| 10:40 ~ 11:00 | 1A02 | 1C02 | 1D02 |
| | Modeling of Discontinuous Long Fiber Composites: Prediction of Stiffness, Strength and Manufacturing Defects Using Rves. Anthony Cheruet, Philippe Martiny, Moncef Salmi, Takato Nakayama, Daisuke Sakata e-Xstream Engineering | Thermo-Elasto-Viscoplastic Analysis of CFRTP Laminates Based on Homogenization Theory Keita Goto*, Masahiro Arai*, Naoto Nogawa*, Tetsuya Matsuda** *Nagoya University, **University of Tsukuba | Improvement of Mechanical Properties of Recycled CFRP Made of Nonwoven Fabric Using Autoclave Shinya Cho*, Hideyuki Tsuchiya*, Sunao Sugimoto**, Kazuyoshi Arai***, Masumi Higashide**, Yutaka Iwahori**, Yasuharu Ono****, Kimiaki Nobutani**** *Hosei University Graduate School, **Japan Aerospace Exploration Agency, ***Hosei University, ****The Japan Wool Textile Co., Ltd. |
| 11:00 ~ 11:20 | 1A03 | 1C03 | 1D03 |
| | Virtual Prototyping of Composite Parts :Challenges in Crash Simulation and Multiscale Characterization of Multimaterial Interfaces Alain Trameçon*, Patrick de Luca*, Sebastian Muller***, Hiroshi Niizeki** *Esi Group, **Nihon Esi, ***Esi Sw GmbH | The Study of Interfacial Shear Strength Between Thermoplastics Having High Thermal Stability and Carbon Fiber T. Irisawa, Y. Tanabe, R. Hashimoto, N. Nagao, M. Arai Nagoya University, Graduate school of Engineering | Effect of Bending Loss on Fiber-Optic Measurement of Degree-of-Cure of Threedimensional Shaped FRP Genko Fujioka, Tatsuro Kosaka, Kazuhiro Kusukawa Kochi University of Technology |
| 11:20 ~ 11:40 | 1A04 | 1C04 | 1D04 |
| | Topology Optimization for Innovative Device and Material Designs Takayuki Yamada, Kazuhiro Izui, Shinji Nishiwaki Kyoto University | Vacuum Molding with Local Heating Based on Optimization of Deformation and Time Hiroaki Matsutani*, Narumichi Sato*, Keiji Ogi**, Ryosuke Matsuzaki*** *Toray Industries, Inc., **Ehime University, *** Tokyo University of Science | Lifetime Prediction of Polyimide Considering Thermodynamic Entropy Hiroki Kuramochi*, Mao Hososhima**, Jun Koyanagi**, Yuki Kubota***, Yuichi Ishida*** *Graduate School of Tokyo University of Science, ** Department of Material Science and Technology, Tokyo University of Science, *** Japan Aerospace Exploration Agency |
| 11:40 ~ 12:50 | Lunch | | |

| Room | A (9-A) | | C (904) | | D (905) | | |
|---------------|---|--|---------------------|---|---------|--|---|
| Session | Plenary Lecture 2 | | | | | | |
| Chair | Jun Koyanagi, Tokyo University of Science | | | | | | |
| 12:50 ~ 13:50 | PL02 | Advanced Composite and Nanocomposite for High Temperature Aerospace Applications. Prof. Luigi "Gino" Torre, Ph.D. SAMPE Global Immediate Past President University of Perugia Strada di Pentima | | | | | |
| 13:50 ~ 14:10 | | | Coffee Break | | | | |
| | | | (13:55-15:35) SIP-2 | | | | |
| | | | Yuichi Ishida, JAXA | | | | |
| | | | | Numerical Simulation of Process-Induced Deformation of Carbon/Epoxy Composite Laminates with Interlayers | | | |
| Session | AFP-1 | | 1C05 | Keiji Ogi*, Mitsuyoshi Tsutsumi*, Koichi Mizukami*, Hiroaki Matsutani**, Narumichi Sato** | | Student Paper Award-2 | |
| Chair | Sunao Sugimoto, JAXA | | | *Ehime University, **Toray Industries, Inc. | | Tatsuro Kosaka, Kochi University of Technology | |
| 14:10 ~ 14:30 | 1A06 | Automated Manufacturing for Mass Production and Low Cost Materials | 1C06 | Evaluation of Mechanical Properties of Carbon Fiber Reinforced Thermoplastic Composites with Fiber Bundle Waviness Tomohiro Yokozeiki, Hidetoshi Takemura, Takahira Aoki | | 1D06 | Numerical Simulation for Strain Rate and Temperature Dependence of Transverse Tensile Failure of UD-CFRP Sakie Shirai*, Mio Sato**, Jun Koyanagi*, Yuki Kubota***, Yuichi Ishida*** |
| | | Alexander Hamlyn | | The University of Tokyo | | | *Department of Materials Science and Technology, Tokyo University of Science, **Graduate School of Tokyo University of Science, ***Japan Aerospace Exploration Agency |
| 14:30 ~ 14:50 | | Coriolis Composites | 1C07 | Development of "TRI A-X" Polyimide / Carbon Fiber Composites Prepared from Imide Solution Prepreg Yuichi Ishida*, Yuki Kubota*, Takuya Aoki*, Toshio Ogasawara**, Takeshi Chiba***, Nobuaki Ohshiro***, Yoshio Furukawa***, Takefumi Furuta***, Rikio Yokota*** *Aeronautical Technology Directorate, Japan Aerospace Exploration Agency, **Tokyo University of Agriculture and Technology, ***Kaneka Corporation | | 1D07 | Effect of Configuration in Intermediate Materials on Textile Processability by TFP Technology Kenya Morie*, Akio Ohtani**, Asami Nakai* |
| | | | | | | | *Mechanical and Systems Engineering, Gifu University, **Fiber Science and Engineering, Kyoto Institute of Technology |
| 14:50 ~ 15:10 | 1A08 | Flexibility in Automated Composites Lamination | 1C08 | Long-Term Thermal Stability of Carbon Fiber/TriA-X Composite Material Yuki Kubota*, Takefumi Furuta**, Yuichi Ishida, Takuya Aoki*, Toshio Ogasawara***, Rikio Yokota** *Japan Aerospace Exploration Agency, **Kaneka Corporation, ***Tokyo University of Agriculture and Technology | | 1D08 | Fabrication of a One-Piece Structure Using Resin and Metal by 3D Printing and Electrolytic Plating T.Kanatani*, R. Matsuzaki*, A. Todoroki** |
| | | Juan Solano | | | | | *Tokyo University of Science, **Tokyo Institute of Technology |
| 15:10 ~ 15:30 | | M.Torres Diseños Industriales | 1C09 | Void Formation in Resin Transfer Molding of Fiber Reinforced Plastics: Experiments and Simulation Shigeki Yashiro*, Daichi Nakashima** *Kyushu University, **Graduate School of Integrated Science and Technology, Shizuoka University | | 1D09 | 3D Printing of Arbitrary Core Shape Sandwich Structures with Continuous Carbon Fiber Kentaro Sugiyama*, Ryosuke Matsuzaki*, Masahito Ueda**, Akira Todoroki***, Yoshiyasu Hirano**** *Tokyo University of Science, **Nihon University, ***Tokyo Institute of Technology, ****Japan Aerospace Exploration Agency |
| 15:30 ~ 15:40 | | | Coffee Break | | | | |

| Room | A (9-A) | | C (904) | | D (905) | |
|---------------|--|---|-------------------------|--|-----------------------------|---|
| Session | AFP-2 | | SIP-3 | | Student Paper Award-3 | |
| Chair | Shu Minakuchi, The University of Tokyo | | Akinori Yoshimura, JAXA | | Keiji Ogi, Ehime University | |
| 15:40 ~ 16:00 | 1A10 | Enhanced Robotic Automated Fiber Placement with Accurate Robot Technology and Modular Fiber Placement Head Kyle Jeffries, Michael D. Assadi | 1C10 | Process Optimization of FRP Using Fresnel Based Optical Fiber Sensors Tatsuro Kosaka, Koji Deguchi, Genko Fujioka, Kazuhiro Kusakawa Kochi University of Technology | 1D10 | Effect of Molding Pressure on Mechanical Properties of FRP Molded by RTM Kazumasa Okayasu*, Rika Tanaka**, Ryo Hirai***, Asami Nakai** *Graduate School of Engineering, Gifu University, **Faculty of Engineering, Gifu University, ***Graduate School of Natural Science and Technology, Gifu University |
| 16:00 ~ 16:20 | | Electroimpact, Inc. | 1C11 | Molecular Dynamics Simulation for Thermosetting Resins as a Matrix of Composite Yutaka Oya*, Kikugawa Gota**, Tomonaga Okabe* *Department of Aerospace Engineering, Tohoku University, **Institute of Fluid Science, Tohoku University, | 1D11 | Designing Fibrous Intermediate Material for Pultrusion Molding Kyuso Morino*, Hikaru Ishihara**, Masaki Ohishi***, Asami Nakai** *Graduate School of Engineering, Gifu University, **Faculty of Engineering, Gifu University, ***Sato Machinery Works Co.,Ltd |
| 16:20 ~ 16:40 | 1A12 | Ply and Fibre Placement Technologies for Out of Autoclave Composites S. Carosella, K. Heudorfer, M. Szczeny, F. Heieck, B. Wolfinger, P. Middendorf | 1C12 | Reduction of Strain Concentration under Tensile Load of CFRP Plate with Hole (Part 1. Reduction by Use of Softened Stack Sequence around the Hole) Masahiro Kashiwagi*, Yoshinori Nonaka*, Toshio Abe**, Kiyoka Takagi* *Mitsubishi Heavy Industries, Ltd., **Churyo Engineering Co., Ltd. | 1D12 | Secret to a Successful Machine by Formula Student Competition Team at Kyoto Institute of Technology Shohei Nobuchi, Naoki Yoshioka, Naoki Higashine Kyoto Institute of Technology |
| 16:40 ~ 17:00 | | Institute of Aircraft Design, University of Stuttgart | 1C13 | Reduction of Strain Concentration under Tensile Load of CFRP Plate with a Hole(Part 2. Rationalization for the Shape of a Pad-Up Reinforcement around a Hole) Kazuhiro Miura*, Masahiro Kashiwagi*, Yukihiro Sato*, Yoshinori Nonaka*, Kiyoka Takagi*, Toshio Abe**, Shinya Honda*** *Mitsubishi Heavy Industries, Ltd., **Churyo Engineering Co.,Ltd., ***Hokkaido University | 1D13 | Study on Heating Condition of Open Molding for Braided CFRTP Pipe Takumi Iwata*, Ryutaro Hori*, Tadashi Uozumi**, Asami Nakai* *Mechanical and Systems Engineering, Faculty of Engineering, Gifu University, ** Murata Machinery, Ltd. Research & Development |
| 17:00 ~ 17:20 | Coffee Break | | | | | |
| Session | Plenary Lecture 3 | | | | | |
| Chair | Yutaka Iwahori, JAXA | | | | | |
| 17:20 ~ 18:20 | PL03 | Next Generation Intermediate Material for Aerospace Automotive Structures Ikuo Takeuchi General Manager ACM Technology Dept., Toray Industries, Inc. Head office. | | | | |

| Room | A (9-A) | C (904) | D (905) |
|---------------|--|---------|---------|
| Nov. 28, 2017 | | | |
| 8:20 ~ | Registration in front of Room 901 | | |
| 10:00 ~ 18:00 | Exhibition at Room E (906) Table Top Exhibition | | |
| 14:10 ~ 16:50 | Tutorial 2 at Room B (902) Automated Tape Laying, Fibre Placement and Robotics Technology Overview Instructor: Dr. Scott W. Beckwith SAMPE-Global Technical Director / BTG Composites, Inc. - President | | |

| Session | Plenary Lecture 4 | | | | | |
|---------------|------------------------------|--|---------------------------------|---|------|---|
| Chair | Asami Nakai, Gifu University | | | | | |
| 9:00 ~ 10:00 | PL04 | Current Status of NCC (at Nagoya University) Project for CFRTP Applications to Auto-Body Designated Prof. Takashi Ishikawa Nagoya University | | | | |
| 10:00 ~ 10:20 | Coffee Break | | | | | |
| Session | RIMCOF | | Additive Manufacturing | Composite Manufacturing, Rapid Production and Automated production / Textiles and Textile Composite Materials | | |
| Chair | Yuichiro Aoki, JAXA | | Masahito Ueda, Nihon University | Akio Ohtani, Kyoto Institute of Technology | | |
| 10:20 ~ 10:40 | 2A01 | The Investigation to Develop High-Rate Manufacturing Technology Using Rapid Curing Resin CFRP Prepreg Naoki Shimada, Yoshihiro Nakayama, Sayaka Ochi, Kenshiro Okumura Kawasaki Heavy Industries, Ltd., | 2C01 | Evaluation of Mechanical Properties of Carbon Fiber Reinforced Plastic Washers Made by Three-Dimensional Printer Nobuki Hirooka*, Masao Yamawaki**, Yousuke Kouno*** *Fudow Co.,Ltd, **NIT Kure College, ***Hiroshima Prefectural Technology Research Institute | 2D01 | Automated Local Reinforcing of Glass Fiber-Injection-Molded Preforms with Carbon Fiber Tapes Dackweiler M., Fleischer J. Karlsruhe Institute of Technology (KIT) |
| 10:40 ~ 11:00 | 2A02 | Development Overview of a Fiber Optic Based Distributed Strain Sensing Technology for Aircraft Structural Health Monitoring Applications Nozomi Saito*, Takashi Yari*, Kazuo Hotate**, Noriyuki Sawaj*** *Mitsubishi Heavy Industries, Ltd., **Toyota Technological Institute, ***R&D Institute of Metals and Composites for Future Industries | 2C02 | Large Scale Additively Manufactured Tooling for Composites Vlastimil Kunc, Ahmed Hassen, John Lindahl, Seokpum Kim, Brian Post, Lonnie Love Oak Ridge National Laboratory | 2D02 | Influence of Foundation Parameters on Steering Radius During AFP Muhsan M Belhaj*, Hassan A Alshahrani**, Mehdi H Hojjati* *Concordia Center for Composites, Department of Mechanical and Industrial Engineering, Concordia University, **College of Engineering, Mechanical Engineering Department, Najran University |
| 11:00 ~ 11:20 | 2A03 | Fiber Optic Nerve Systems for Structural Health Monitoring with Brillouin Optical Correlation Domain Techniques Kazuo Hotate*, Nozomi Saito**, Takashi Yari** *Toyota Technological Institute, **Mitsubishi Heavy Industries, Ltd. | 2C03 | Mechanical Properties of Milled Carbon Fiber Reinforced Polymeric Composites for Additive Manufacturing Applications Kohji Suzuki Chiba Institute of Technology | 2D03 | Influence of Surface Damage Caused by High-Speed Cutting on Mechanical Properties of CFRP Plates Katsuyuki Hara* , Toshikazu Uchida* , Yosuke Watanabe* Norimichi Nanami** , Koji Kuroda***, Hiroyuki Hamada***, Akihiko Goto****, Hayato Nakatani***** *Uchida Co., Ltd, **Nihon University, ***Kyoto Institute of Technology, ****Osaka Sangyo University, *****Osaka City University |
| 11:20 ~ 11:40 | 2A04 | Lightning Protection - Characteristics of Ignitable Spark in Composite Fuel Tank Structure Takayuki Nishi*, Yasunori Sato*, Hiroyuki Tsubata*, Shinya Ohtsuka** *Subaru corporation, **Kyushu Institute of Technology | 2C04 | Three-Dimensional Printing of a High-Vf CFRP by Means of In-Nozzle Impregnation Technique Ryo Omuro*, Masahito Ueda*, Ryosuke Matsuzaki**, Akira Todoroki***, Yoshiyasu Hirano**** *Nihon University, **Tokyo University of Science, ***Tokyo Institute of Technology, ****Japan Aerospace Exploration Agency | 2D04 | An Experimental Study of the Pultrusion of Carbon Fiber/Thermoplastic Epoxy Resin Patcharat Wongsriraksa*, Asami Nakai** *Center for Advanced Die Engineering and Technology, Gifu University, ** Department of Mechanical Engineering, Gifu University |
| 11:40 ~ 12:00 | 2A05 | Lightning Protection - Measurement of Spark Light Emission on CFRP Structure for Verification of Ignitable Spark Shinya Ohtsuka*, Shouichi Kamoda*, Tomoya Shiraiishi*, Takayuki Nishi**, Hiroyuki Tsubata** *Kyushu Institute of Technology, **Subaru Corporation | 2C05 | On 3D Printer Processing of Long Kenaf Yarn Reinforced Poly(Lactic Acid) Green Composites Kohji Suzuki*, Keigo Ishizuka*, Susumu Arai** *Chiba Institute of Technology, **Unipacs Co. Ltd. | 2D05 | Coupled Deformation Modes in Textile Composite Prepreg Forming Hassan A Alshahrani*, Mehdi H Hojjati** *College of Engineering, Mechanical Engineering Department, Najran University, **Concordia Center for Composites, Department of Mechanical and Industrial Engineering, Concordia University |
| 12:00 ~ 13:00 | Lunch | | | | | |

| Room | A (9-A) | | C (904) | | D (905) | |
|---------------|------------------------|---|------------------------|---|---------------------------------|--|
| Session | Plenary Lecture 5 | | | | | |
| Chair | Noriyuki Sawai, RIMCOF | | | | | |
| 13:00 ~ 14:00 | PL05 | Electrically Conductive and High-performance Structural Composites and Green Composites for the Next Generation of Aircraft Prof. Xiaosu Yi President, SAMPE China Region Professor Beijing Institute of Aeronautical Materials, AVIC | | | | |
| 14:00 ~ 14:10 | Coffee Break | | | | | |
| Session | Joint technology | | Automotive application | | Thermoplastic Composites-1 | |
| Chair | Tomo Takeda, JAXA | | Hikaru Hoshi, JAXA | | Hirohito Hira, Daido University | |
| 14:10 ~ 14:30 | 2A06 | Fracture Behavior and Mechanical Properties of Rivet Joint by Using Ultrasonic Vibration with C-FRTP Akio Ohtani Faculty of Fiber Science and Technology, Kyoto Institute of Technology | 2C06 | Cardboard Panels Reinforced with Braided Unidirectional Carbon and Glass Fiber Rods for Vehicle Crash Impact Attenuation Gabriel Y. Fortin*, Yuri Imai*, Hiroyuki Hamada** *Department of Advanced Fibro-Science, Kyoto Institute of Technology, **The Future-Applied Conventional Technology Centre, Kyoto Institute of Technology | 2D06 | Mechanical Properties of Novel Carbon/Glass Hybrid Thermoplastic Composite Rods Kimiyoshi Naito*, Hiroyuki Oguma*, Kiyoshi Usawa** *National Institute for Materials Science (NIMS), **Kanazawa Institute of Technology (KIT) |
| 14:30 ~ 14:50 | 2A07 | Joining Aluminum to Carbon Fiber Reinforced Epoxy Composites by Ultrasonic Welding Alfonso Maffezzoli*, Francesca Lionetto*, Frank Balle** *Department of Engineering for Innovation, University of Salento, **Institute of Materials Science and Engineering, Hybrid Materials Engineering Group, University of Kaiserslautern | 2C07 | Non-Crimp Fabrics for Railway and Automotive Applications Steven Bakker, Carsten Reese Saertex GmbH & Co. KG | 2D07 | Fabrication of CFRTP Plate from Nonwoven Fabric Mixed with Carbon Fiber and PA6 Fiber Hirohito Hira*, Shutaro Machiya*, Hiroyuki Shibaki**, Makoto Harada*** *Daido University, **Gifu University, ***Mikawa Textile Research Center |
| 14:50 ~ 15:10 | | | 2C08 | Epoxy Matrix Technologies Enable Cost-Efficient Mass Production of Composite Leaf Springs Sigrid ter Heide, Dr. Lars Moser, Dr. Ian Swentek, Hiroshi Akiyama Hexion Inc. | 2D08 | Impregnation Behavior of Carbon Fiber Fabric Underneath the Rollers in Double Belt Press Osuke Ishida*, Junichi Kitada**, Katsuhiko Nunotani*, Kiyoshi Uzawa* *Kanazawa Institute of Technology, **Sandvik K.K. |

Coffee Break

Poster Session at Room E (906)

Notice: "Poster review session" will also be held in Room E from 10:00 to 10:40 on Tuesday November 28. Poster presenters are kindly reminded to stay at their posters during that period for "3-minutes short presentation".

PO-01

Effect of Molding Condition on Mechanical Properties of FRP by RTM

Ryo Hirai*, Kazumasa Okayasu**, Rika Tanaka***, Asami Nakai***

*Graduate School of Natural Science and Technology, Gifu University, **Graduate School of Engineering, Gifu University, ***Faculty of Engineering, Gifu University

PO-02

Mechanical Properties of Pla/Cf Composite Filaments for Additive Manufacturing Applications

Yuan Wang*, Kohji Suzuki**

*Graduate School, Chiba Institute of Technology, **Chiba Institute of Technology

PO-03

On 3D Printing of Topology-Optimized Core Layers of Sandwich Beams and Their Mechanical Properties Validations

Morihiro Tsukada*, Kohji Suzuki*, Takeshi Takatoya**

*Graduate School, Chiba Institute of Technology, **Chiba Institute of Technology, Department of Mechanical Engineering, ***Japan Aerospace Exploration Agency

PO-04

Study on Open Molding Method for Improving Impregnation State of Braided CFRTP Pipes

Ryutaro Hori*, Takumi Iwata*, Tadashi Uozumi**, Asami Nakai*

*Gifu University, **Murata Machinery, Ltd

PO-05

The FEM Analysis of Type-Iv Pressure Vessel Using a Carbon Tow Prepreg Composites

Sung-won Yoon*, Je-hyoung Jo*, Tae-yeob Kim*, Dong-hun Yang**

*Research Institute of Medium & Small Shipbuilding, **TK-Fujikin Corporation

PO-06

Fracture Mechanism of CFRP Honeycomb Sandwich Panels Subjected to Bending Load

Hajime Yoshinaga*, Toshio Ogasawara*, Shigeo Suzuki**, Tsuyoshi Oguri**, Takamasa Matsuda**, Hideaki Kusano***, Akinori Yoshimura****

*Tokyo University of Agriculture and Technology, **Jamco Corporation, ***Shimadzu Corporation, ****Japan Aerospace Exploration Agency

PO-07

In-Situ Observation of Crack Tip Strain Field in CFRP Laminates Using Digital Image Correlation Method

Sota Oshima*, Akinori Yoshimura**, Yoshiyasu Hirano**, Toshio Ogasawara*

*Tokyo University of Agriculture and Technology, **Japan Aerospace Exploration Agency

PO-08

Impact Properties of Aramid/Nylon Knitted Composite

Yuri Imai, Pinpathomrat Badin, Shinji Nojima, Hiroyuki Hamada

Kyoto Institute of Technology

15:10 ~ 15:50

| Room | A (9-A) | C (904) | D (905) |
|---------------|--|--|--|
| 15:10 ~ 15:50 | PO-09 Long Term Performance of GFPP Composites by DFFIM Shinji Nojima*, Lichao Yu*, Yuqiu Yang**, Hiroyuki Hamada* *Kyoto Institute of Technology, **Donghua University | | |
| | PO-10 Developed Emc Parts for Automotive Proximity Sensor with Magnetic Metal Coated Fiber Kim Hyeon-Hye**, Han Woong*, Kim Byung-Joo* *R&D Division, Korea Institute of Carbon Convergence Technology, **Department of Chemical Engineering, Chonbuk National University | | |
| | PO-11 Mechanical Properties of Electroless Nickel Coated Carbon Fiber Reinforced Composites with Different Phosphorus Baek Jin**, Han Woong*, Kim Byung-Joo* *R&D Division, Korea Institute of Carbon Convergence Technology, **Department of Chemical Engineering, Chonbuk National University | | |
| | PO-12 Bending Process for Composite Pipe during Molding Process Masaaki Yagi*, Kyuso Morino*, Asami Nakai*, Masaki Ohishi** *Mechanical and Systems Engineering, Faculty of Engineering, Gifu University, **Sato Machinery Works Co.,Ltd | | |
| Session | Aerospace Application | Numerical Modeling and Structural Design | Thermoplastic Composites-2 |
| Chair | Yuki Kubota, JAXA | Kohji Suzuki, Chiba Institute of Technology | Shin-ichi Takeda, JAXA |
| 15:50 ~ 16:10 | 2A09 Investigation of the Impact Properties of Thin-Ply Prepreg at Element Level Christian Buelow*, Norbert Heltsch**, Yoshiyasu Hirano***, Yuichiro Aoki***, Kazumasa Kawabe**** *German Aerospace Center, DLR, ** Airbus Operations GmbH, *** Japan Aerospace Exploration Agency, **** Industrial Technology Center of Fukui Prefecture, ITCF | 2C09 Direct Simulation for Flexible Long Fiber in Compression Molding of Thermoplastic Composite Masatoshi Kobayashi*, Koji Dan*, Daisuke Urakami**, Ryo Nakano** *Honda R&D Co., Ltd., **Toray Engineering Co., Ltd. | 2D09 Molding Processes for Composites Using in Situ-Polymerizing Thermoplastic Epoxy Resin as the Matrix Hirofumi Nishida*, Masaki Inagaki*, Kiyoshi Uzawa* Kanazawa Institute of Technology |
| 16:10 ~ 16:30 | 2A10 Analysis of Void Defect in Composite Materials Due to Thermal Cycling for Space Environment Shambhu K. Gupta, Mehdi Hojjati Concordia Center for Composites, Department of Mechanical and Industrial Engineering, Concordia University | 2C10 Simulation Approach for the Bend-Forming of the CFRT Katsuhiko Nunotani, Kiyoshi Uzawa Innovative Composite Materials Research and Development Center Kanazawa Institute of Technology | 2D10 Processing and Characterization of Long Fiber Thermoplastic Technology-Based Carbon Fiber/ABS Composites Donghwan Cho, Daekyun Hwang Department of Polymer Science and Engineering, Kumoh National Institute of Technology |
| 16:30 ~ 16:50 | 2A11 Novel Benzoxazine Prepreg with Superior Hot-Wet Strength and Fracture Toughness Takayuki Matsumoto, Yoshihiro Fukuda, Masaki Minami, Ayumu Komata Jxgtg Nippon Oil & Energy Corp. | | |
| 16:50 ~ 17:00 | Coffee Break | | |
| Session | Plenary Lecture 6 | | |
| Chair | Takashi Ishikawa, Nagoya University | | |
| 17:00 ~ 18:00 | PL06 Thermoplastic composites in aircraft structures – Challenges and Potentials – Prof. Axel S. Harrmann CTO Chief Technology Officer, The Board- Strategy Gremium of the CFK Valley E.V. | | |
| 18:30 ~ 20:30 | Banquet at Room Iris, 3rd Floor, Tokyo Bay Ariake Washington Hotel | | |

| Room | A (9-A) | C (904) | D (905) |
|---------------|--|---------|---------|
| Nov. 29, 2017 | | | |
| 8:20 ~ | Registration in front of Room 901 | | |
| 9:00 ~ 10:20 | Exhibition at Room E (906) Table Top Exhibition | | |

| Session | Plenary Lecture 7 | | | | | |
|---------------|---|--|--|--|------|---|
| Chair | Kiyoshi Uzawa, Kanazawa Institute of Technology | | | | | |
| 9:00 ~ 10:00 | PL07 | CFK Valley diversification strategy into composites for building and infrastructure application Dr. Gunnar Merz CEO Chief Executive Officer and Chair of the Board | | | | |
| 10:00 ~ 10:20 | Coffee Break | | | | | |
| Session | Building and Infrastructure | | Material and Processing | Composite testing and standarization / Nano composites | | |
| Chair | Manato Kanesaki, Kanazawa Institute of Technology | | Hirofumi Nishida, Kanazawa Institute of Technology | Eiichi Hara, JAXA | | |
| 10:20 ~ 10:40 | 3A01 | Applicability and Manufacturing Cost of Continuous Molding CFRTP for Floating Offshore Vertical Axis Wind Turbine Blade Manato Kanesaki*, Hiromichi Akimoto** Yasuhiro Takata*, Kiyoshi Uzawa* *ICC, Kanazawa Institute of Technology, **Caren, Osaka University | 3C01 | Development of Creep-Less Composites by Using Tg-Less Epoxy Resin Hirofumi Nishida*, Norio Hirayama** *Kanazawa Institute of Technology, **Nihon University | 3D01 | Fimatest - a New Testing System to Determine the Fibre-Matrix Adhesion Strength by Means of Pull-Out Tests Edith Mäder*, Christina Scheffler*, Andrea Miene**, Stefan Fliescher***, Ulrich Mörschel***, Claudia Poitzsch***, Erich Ingelsberger*** *Leibniz-Institut für Polymerforschung Dresden e. V. (IPF), **Faserinstitut Bremen e. V. (FIBRE), ***Textechno Herbert Stein GmbH & Co. KG |
| 10:40 ~ 11:00 | 3A02 | Feasibility Study for Needs Investigation and Implementation of Thermoplastic FRP in Civil Engineering Field Atsushi Hokura, Shinichi Miyazato Kanazawa Institute of Technology | 3C02 | Effect of Interfacial Strength of Carbon Fiber and Polyamide 6 Resin by Heat-Treatment of Sizing Agent Hiroyuki Hasebe*, Etsuro Sugimata**, Joji Saito*, Daisuke Mori*, Ousuke Ishida**, Katsuhiko Nunotani**, Takayuki Tsukegi**, Hisai Ueda**, Kiyoshi Uzawa** *Industrial Research Institute of Ishikawa, **Kanazawa Institute of Technology ICC | 3D02 | ISO Standardization for Galvanic Corrosion Test of CFRP-Metal Assemblies Tetsuya Morimoto*, Hisaya Katoh*, Eiichi Hara*, Yutaka Iwahori* Japan Aerospace Exploration Agency |
| 11:00 ~ 11:20 | 3A03 | Consideration Regarding Ways to Accelerate Use of Composite Materials in B&I Fields Kazuo Sato*, Kiyoshi Uzawa*, Yoshihiro Saito*, Junji Tanaka* Kanazawa Institute of Technology | 3C03 | HP-RTM Process by Using Preform of Chopped Carbon Fiber Tape Joji Saito*, Daisuke Mori*, Takeo Sogawa**, Kiyotsugu Asai**, Ousuke Ishida**, Katsuhiko Nunotani**, Yoshihiro Saito**, Masashi Horikawa****, Kiyoshi Uzawa*** *Industrial Research Institute of Ishikawa, **Tec One Co., Ltd, ***Kanazawa Institute of Technology ICC, ****Kyowa Industrial Co., Ltd | 3D03 | Ultrabroad Band Frequency Reponse Strain Sensor Based on Graphene Nanocomposite Feng Duan*, Yaozhong Liao**, Zhong Zhang*, Zhongqing Su** *Department of Mechanical Engineering, The Hong Kong Polytechnic University, **CAS Key Laboratory of Nanosystem and Hierarchical Fabrication, CAS Center for Excellence in Nanoscience, National Center for Nanoscience and Technology |
| 11:20 ~ 13:00 | Lunch | | | | | |
| 13:00 ~ 18:30 | Post conference tour for JAXA Tsukuba Space Center (Pre-registration is required) The tour will start in front of the TFT Bldg. at 13:00 by a charter bus. | | | | | |