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|  *Opening Ceremony of the UW-TU: AOS**(N-1 version)* *Memorial Workshop on Next Generation Transport Aircraft: April 12-13, 2017**Memorial Symposium: 3:00-5:00 April 13, 2017**Signing Ceremony of AOS and Reception: April 14, 2017**Reception: 2:00-4:00 April 13, 2017* |
| **April 12 (Wed.)** |
| 13.00 - 17.00 *HUB Room-250, UW**Chair：Prof.Okabe**Chair：Dr.Odagiri* | **Memorial Workshop on Next Generation Transport Aircraft*** **Numerical simulation and analysis for cost effective aircraft design**
* Opening remarks

Takuma Takahashi(Deputy Director of Aerospace and Defense Industry Division, Ministry of Economy, Trade and Industry, Japan) (5min)* Title: Introduction of “Development of Numerical Simulation Methods for Cost-Effective Aircraft Design”

Speaker: Shigeru Obayashi(Director, Institute of Fluid Science, Tohoku University) (25min)* Title: High-fidelity numerical simulation of airfoil flows at non-cruise high Reynolds number conditions

Speaker: Soshi Kawai(Associate Professor, Department of Aerospace Engineering /, Co-director, Next Generation (Jisedai) Aircraft Research Center Tohoku University) (25min)* Title: Experimental testing and optimization of tow-steered composites

Speaker: Ryosuke Matsuzaki(Junior Associate Professor, Department Mechanical Engineering, Tokyo University of Science) (25min)* Title: Analytical evaluation of impact damage in circular laminates

Speaker: Hiroshi Suemasu(Professor, Department of Engineering and Applied Sciences, Sophia University)Break (15 min)* **Composite Materials**
* Title: Effects of the Manufacturing Process on AFP composites

Speakers: Dr. Paul Davidson( University of Washington)Nobuo Arai or Don Lee(Toray Composite Materials America, Inc.) (60min)* Title: Effects of Moisture Diffusion on Sandwich Composites

Speaker: Mark Tuttle(Director, AMTASDepartment of Mechanical Engineering, University of Washington) (30min)* Title: Opportunities and Challenges for Polymer Matrix Composites in Aerospace”

Speaker: Tia Benson Tolle(Director, Materials and Fabrication Boeing Commercial Airplanes, Product Development) (30min) |
| 17.00 - 19.00 *HUB Room-250, UW* | **Poster Session on Composite Materials for Aircraft and Aero Space Engineering**Title: Determination of the Elastic Constants of CFRP Using Resonant Ultrasound SpectroscopyPresenter: Go Yamamoto(Associate Professor, Tohoku University)Title: Continuum damage mechanics modeling of PMC laminates including  transverse cracks  Presenter: Sota Onodera  (Graduate student, Tohoku University) Title: An attempt to extend skew-symmetric forms to modal discontinuous  Galerkin schemes  Presenter: Hiroyuki Asada  (Graduate student, Tohoku University) Title: Multiscale Modeling for Evaluation of Free-Surface Effect on Crack Formation in Carbon Fiber-Reinforced Composites Presenter: Yuta Kumagai (Graduate student, Tohoku University) Title: Multiscale Plasticity Modeling on Mechanical Anisotropy of Advanced Materials Presenter: Yoshiteru Aoyagi (Associate Professor, Tohoku University) Title: Curved fiber laminating device for processing of tow-steered composites Presenter: Atsushi Shinoda (Graduate student, Tokyo University of Science)- Title: Some Novel Approach for Strength Improvement of Composite T-Joints Presenter: Shinsaku Hisada (Graduate Student, The University of Tokyo) |
| **April 13 (Thu.)** |
| 09.00 – 12:00*HUB Room-250, UW**Chair：Prof.Obayashi* | **Memorial Workshop on Composite Materials for Aircraft and Aero Space Engineering*** **Cross - ministerial Strategic Innovation Promotion Program (SIP) : Innovative Materials for Structure Program**
* Title: Further Development of High Rate Production Innovative Aircraft CFRP and Quality Assurance Technology 　　　　　　　　　　　　　　　　　　Speakers: Nobuo Takeda and Akira Hamamoto

 (TJCC, The University of Tokyo) (30min)* Title: Motivation, Status and challenges - Tough and high volume

production-ability CFRP developmentSpeaker: Toshio Abe (Churyo Engineering Co., Ltd.) (30min)* Title: Multiscale Simulation of CFRP Considering Geometrical Imperfection

Speaker: Akinori Yoshimura (JAXA) (30min) Break(30min)* Title: Optical Fiber Based Intelligent Process Monitoring and Modeling of CFRP Structures

Speakers: Nobuo Takeda and Shu Minakuchi (TJCC, The University of Tokyo) (30min)* Title: Impact Damage Simulations on Composite Laminates

Speakers: Anthony Waas and Solver Thorsson (William E Boeing Department of Aeronautics and Astronautics, University of Washington)(30min) |
| 12.00 – 13:00*TBC* | Lunch |
| **15:00 – 17:15***HUB Room-250, UW**Moderator* *Prof. Ohuchi**TOTAL 125~135min*  | **UW-TU:AOS Opening Memorial Symposium**(First Half-Total 54 min talk: 57+3=60 min) * **Welcome Address**

- Prof. Susumu Satomi, President, Tohoku University (3 min)- Dean of College of Engineering, Michael Bragg, University of  Washington (3 min) - Dean of College of Engineering, Hirotsugu Takizawa, Tohoku  University (3 min) - Toray Composite Materials America, Inc. Vice President,  Nobuyuki Odagiri (3min)* **TU Globalization and collaboration with US**

 - Prof. Toshiya Ueki, Executive Vice President, Tohoku University (5 min)* **Goals and Roles of UW-TU:AOS**

- Prof. Fumio Ohuchi, Interim Chair of Materials Science and Engineering, University of Washington (10 min)* **Keynote Speech:**

**Japan’s National Project “Cross-ministerial Strategic Innovation****Promotion Program” and UW-TU:AOS** * Prof. Nobuo Takeda, International Initiatives Organization, Tohoku

 University / Director, TJCC, the University of Tokyo and Masahiro  Takemura, SIP Director, Structural materials for Innovation, Japan Science  and Technology Agency (JST) (30 min)  (Second Half-Total 56 min talk: 56+9=65 min) * **UW-TU:AOS’s Strategic Development in Education and Research**

**Education and Information Exchange** * Prof. Kyosuke Yoshimi, Graduate School of Engineering, Tohoku University (8 min)

**Research Matching in Energy Systems for Transportation** * Prof. Shigeru Obayashi, Director, Institute of Fluid Science, Tohoku University (8 min)
* Prof. Dan Schwartz, Clean Energy Institute, Director, Chemical Engineering Department, University of Washington (8min)

**Research Matching in Next Generation Airplane and Space Technology*** Prof. Anthony Waas, Aerospace and Astronautics Department, University of Washington (8 min)
* Prof. Kristi Morgansen, Space Research Center, Aerospace and Astronautics Department, University of Washington (8 min)

**Research Matching in Natural Hazard and Disaster Engineering*** Prof. Yamaguchi, Tohoku University, representing Int. Res. Inst. of Disaster Science (IRIDeS) (8min)
* Prof. Laura L Lowes, University of Washington, Natural Hazard Engineering (8 min)

VIP dinner |
| **April 14 (Fri.)** |  |
| 10.00 – 10:30*Gerberding Hall Conference room**No Public*  | **UW-TU: AOS Signing ceremony*** Address
* Prof. Ana Mari Cauce, President of UW
* Prof. Susumu Satomi, President of TU
* Mr. Masahiro Omura, Consul General of Japan in Seattle
* Prof. Toru Tamiya, Director of JSPS San Francisco Office
* MOU signing
* Gift Exchange
* Group photo

*\*Moderator: Vice Provost Jeffrey Riedinger , UW* |
|  | - Walk in the campus and visit AOS - Lunch at the Faculty Club- Transfer to the Official Residence of Consul General of Japan |
| 14.00 - 16.00*Official residence of Consul General of Japan**Address:**23 Highland Drive**Seattle, WA 98109* | **UW-TU:AOS Reception** *Official residence of Consulate General of Japan in Queen Ann.* * Address
* Mr. Masahiro Omura, Consul General of Japan in Seattle
* Prof. Susumu Satomi, President of TU
* VIP invited by Consulate General of Japan in Seattle
* Toast

- VIP (Toray would be preferable) invited by TU* AOS introduction
* Prof. Fumio Ohuchi, UW

*\*Moderator: Associate Executive Vice President Masahiro Yamaguchi , TU* |