

# ICFC3 Final Program: Ver. 03

2004-SEP-15

If you find mistake, please contact us and point out by e-mail

13 th, September 2004			
	Room - 1	Room - 2	
11:00	Conference desk is opened		
13:00	Opening Conference N. Takeda and M. Hojo	page 1	page
13:30	Session Chair: Takeda Invited lecture: I - 0 C. Bathias An Engineering Point of view about the Fatigue of Composite Materials	1	
13:50	Invited lecture: I - 2 M. Kageyama Development of Co-Cured Composite Structures for XF - 2 Fighters	3	Session, Registration ID Speaker, Nation Presentation Title Author(s)
14:20	Keynote presentation: K - 4 Yapa D. S. Rajapakse Composites for Marine Structures: Challenges and Recent Yapa D. S. Rajapakse	5	
14:50	Short Break		
	Design		
15:00	Session Chair: M. Kageyama Design - 1 , o-15 Nathan L. Post, USA Modeling the Remaining Strength of Structural Composite Materials Subjected to Fatigue Post, Nathan L., Bausano John, Case Scott W. and Lesko John	7	
15:20	Design - 2 , o-51 Y. Aoki, Japan Fatigue Test of Lightweight Composite Wing Structure Y. Aoki, T. Ishikawa, S. Takeda, Y. Hayakawa, A. Harada and H. Kikukawa	9	
15:40	Design - 3 , o-6 H. Kikukawa, Japan Some New Approaches to Evaluate Durability and Damage Tolerance for Aircraft Composite Structures H. Kikukawa	11	
16:00	Short Break		
	Damage (1)		
16:10	Session Chair: J. Renard Damage - 1 , o-52 J. Noda, Japan Modeling of Fatigue Crack Growth of Ply Cracks in GFRP Cross - ply Laminates J. Noda, T. Okab, N. Takeda, M. Shimizu	13	
16:30	Damage - 2 , o-35 Ch. Hochard, France A progressive first ply failure model for CFRP laminates under static and fatigue loads Ch. Hochard and J. Payan	15	
16:50	Damage - 3 , o-31 Gerald Pinter, Austria Characterisation of the tensile fatigue behaviour of RTM-laminates by isocyclic stress-strain diagrams Ladstater Elisabeth, Pinter Gerald, Wolfgang Billinger and Lang Reinhold Walter	17	
17:10	Damage - 4 , o-26 A. Hosoi, Japan Fatigue characteristic of quasi - isotropic CFRP laminates subjected to variable amplitude cyclic loading of two-stage A. Hosoi, H. Kawada and Y. Hiromichi	19	
17:30	Damage - 5 , o-29 Amit Karmakar, India Free Vibration Characteristics of Delaminated Composite Twisted Cylindrical Shells Karmakar Amit, Roy Haraprasha and Kishimoto Kikuo	21	
17:50	Scientific Committee meeting		

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10:00	Short Break		
10:10	Wind turbine Session Chair: C. Kensche Wind turbine - 1 , o-63 Y. Aono, Japan Effect of Stress ratio on fatigue strength of DBM composites Y. Aono, H. Noguchi, Seung-Hwan Lee and Y. Nonaka	27	NDE Session Chair: N. Himmel NDE - 1 , o-66 C. S. Shin, Chaina Investigation of Fatigue Damage in Polymeric Composites using multiple Fibre Bragg Grating C. S. Shin, C. C. Chiang and Raghu V Prakash
10:30	Wind turbine - 2 , o-14 Kong Changduk, Korea Investigation of Fatigue Life for a Medium Scale Composite Wind Turbine Blade Changduk Kong, Bang Johyuk and Sugiyama Yoshihiko	29	NDE - 2 , o-69 Emin Bayraktar, France Multiscale Study of Fatigue Behaviour of Composite Materials by c - ray Computed tomograph E. Bayraktar, R. Caplain and C. Bathias
10:50	Wind turbine - 3 , o-36 A.R.Chambers, UK The effect of voids on the flexural fatigue performance of unidirectional carbon fibre composites for wind turbine applications Ch. Hochard and J. Payan	31	NDE - 3 , o-11 Sung Joon Kim, Korea Prediction of fatigue damage for composite laminate using impact response Sung Joon Kim and In Hee Hwang
11:10			NDE - 4 , o-20 Yoon Han - Ki, Korea Bending Strength and Fatigue Life Characteristics of CFRP/Al7075 Laminated Hybrid Composite Yoon Han - Ki and Lee Kyung - Bong
11:30	Lunch Time, at restaurant on 7th floor (Ticket is included in conference fee for all attendee).		

13:00	Session Chair: C. Fujiwara Invited lecture: I - 3 Ramon Terrones Composite Materials at Airbus	33		
13:30	Session Chair: M. Hojo Invited lecture: I - 1 R.C. Alderliesten, J.J. Homan Fatigue & Damage Tolerance Issues of GLARE in the A380	35		
14:00	Short Break			
14:10	Repair Session Chair: R.C. Alderliesten Repair - 1 , o-2 Wang QY, China Gigacycle Fatigue Behavior in Bonded Composite Repairs Q.Y. Wang, N. Kawagoishib and Q. Chenb	37	MMC (1) Session Chair: M. Imuta MMC - 1 , o-4 Yuanding HUANG, Germany Investigation on thermal fatigue of metal matrix Y. D. Huang, N. Hort, H. Dieringa and K. U. Kainer	63
14:30	Repair - 2 , o-25 S. Takeda, Japan Health monitoring of composite repair patches with embedded small - diameter FBG sensors S. Takeda, T. Yamamoto, Y. Okabe, N. Takeda and T. Ishikawa	39	MMC - 2 , o-38 Yoshiaki Akiniwa, Japan Fatigue Damage Evaluation in SiCp/2024 by X - Ray Diffraction Method Akiniwa Yoshiaki and Tanaka Keisuke	65
14:50	Repair - 3 , o-56 Hyoung - Soo Kim, Japan Tensile and fatigue properties of repaired carbon/epoxy composite laminates Hyoung-Soo Kim and G. Ben	41	MMC - 3 , o-16 Sirirat Rattanachan, Thailand Fatigue Behavior of BaTiO <sub>3</sub> Al <sub>2</sub> O <sub>3</sub> Piezoelectric Composite Sirirat Rattanachan, Yukio Miyashita and Yoshiharu	67
15:10	Repair - 4 , o-21 Yoon Han - Ki, Korea Fatigue Crack Growth Behaviors of AFRP patched Al2024 Alloy (APAL) Yoon Han - Ki and Kim Dong - Hyun	43	MMC - 4 , o-61 Serge Kruch, France Fatigue damage analysis of unidirectional metal matrix composites Serge Kruch, Jean-Louis Chaboche	69
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16:50	Short Break			
17:00	Infrared Method Session Chair: T. Uenoya Infrared Method - 1 , o-32 Gerald Pinter, Austria Infrared thermographic techniques for non - destructive damage characterization of carbon fiber reinforced composites during fatigue testing Steinberger Robin, Ladstaetter Elisabeth, Telma Leitao, Pinter Gerald, Wolfgang Billinger and Lang Reinhold Walter	49	MMC (2) Session Chair: K. Tohgo MMC - 5 , o-42 M. Sakaguchi, Japan On The Effect of Gamma/Gamma - Prime Morphology on Fatigue Strength of Single Crystal Ni - Based Superalloy, Employing The Composite Model. M. Sakaguchi and M. Okazaki	71
17:20	Infrared Method - 2 , o-13 V. Bellenger, France Thermal and Mechanical Fatigue of A PA66/GLASS Fibers Composite Material V. Bellenger, A. Tcharkhtchi and Ph. Castaing	51	MMC - 6 , o-45 C. Masuda, Japan Fatigue properties for Cu - Cr In - situ Composite Chitoshi Masuda	73
17:40	Infrared Method - 3 , o-23 K. Kurashiki, Japan A method to evaluate fatigue damage of GFRP by the infrared thermography K. Kurashiki, Qing-Qing Ni, M. Iwamoto and Y. Matsunaga	53		
18:00	Banquet, at restaurant on 7th floor. (Ticket is included in conference fee for all attendee).			
18:30	Greetings: T. Katayama			

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10:30	Joint and Delamination - 2 , o-59 Marino Quaresimin, Italy Finite Element Analysis of Bonded Joints in Composite Material Marino Quaresimin and Mauro Ricotta	81	Environmental effect - 3 , o-22 K. Ogi, Japan Effect of temperature and after - cure on fatigue fracture behavior of a glass/phenol composite. K. Ogi, T. Shiraishi and H. Murayama
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11:10	Joint and Delamination - 4 , o-68 H. Kimura, Japan Suppression of mode I and II crack in CFRP laminates by shape memory alloy TiNi actuator H. Kimura, Y. Akiniwa, K. Tanaka, Y. Okumura, H. Tanaka	85	Environmental effect - 5, o-40 Hyo Jin Kim, Korea Effect of Water Absorption Fatigue on Mechanical Properties of Sisal Textile Fiber Reinforced Do Won Seo, Hyo Jin Kim and Jae Kyoo Lim
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13:40	Keynote presentation: K - 2 G. Marom Fatigue behavior and Dynamic mechanical properties of filament wound PE/PE composites and Compacks G. Marom, S. Ratner, A. Pegoretti and C. Migliaresi	91	
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14:40	Intralaminar - interlaminar fracture - 2, o-19 H. Tanaka, Japan Fractography and Micromechanical Analysis of Front Shape of Fatigue Cracks in CFRP H. Tanaka, Y. Nakai, N. Hina and K. Tanaka	95	Damage - 7 , o-55 Ajit D. Kelkar, USA Effect of Braid Angle on Fatigue Performance of Biaxial Braided Composite Jitendra S. Tate and Ajit D. Kelkar
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16:10	T. Fujii and next organizer		