

Program of the 10th Structural Integrity and Failure Conference: Advances in Materials and Structures (SIF 16)

12th July Pre-Conference	Time (From) Location	Time (To)	13th July (Wednesday) Day 1 The University of Adelaide, Napier Building, ground floor*	Time (From) Location	Time (To)	14th July (Thursday) Day 2 The University of Adelaide, Napier Building, ground floor*	15th July Post-Conference
AM	8:00	8:50	Registration Open, Arrival Tea/Coffee Napier G03 Prof Chun Wang	8:30	8:50	Registration Open, Arrival Tea/Coffee Napier G03 Prof Lin Ye	(All day TBA and depending own interest) Post-Conference Wine Testing Tour to Barossa Valley
	8:50	9:10	Opening Ceremony, Napier G03	9:10	9:50	Plenary talk - Prof Hoon Sohn (Korea Advanced Institute of Science and Technology) Noncontact sensing technology for structural health monitoring and nondestructive testing	
	9:10	9:50	Plenary talk - Prof Yiu-Wing Mai (The University of Sydney) Personal research reflections on Fracture Mechanics of materials	9:50	10:20	Keynote talk - Prof Chun Wang (RMIT) Aligning and chaining nano-sized carbon reinforcement to improve damage tolerance and diagnosis of fibre reinforced composites	
	9:50	10:20	Keynote talk - A/Prof WenHui Duan (Monash University) Sustainable and resilient infrastructure – new perspective from emerging nanomaterials	10:20	10:40	Morning Tea (20 min)	
	10:20	10:40	Morning Tea (20 min)	10:40	11:00	Dr Jun Li - Using identified impulse response functions for structural damage detection	
	10:40	11:00	A/Prof Ling Yin - Structural integrity and failure of ceramic dental crowns	11:00	11:20	Dr Pouria Aryan - Application of a method for reconstruction of baseline signal for damage detection in composites using guided waves	
	11:00	11:20	Dr Chris Wallbrink - Next Generation Fatigue Analysis Software: CGAP+	11:20	11:40	Mr Yi Yang - Higher harmonic generation of guided waves at fatigue cracks: three-dimensional Finite Element simulation	
	11:20	11:40	Dr Zhuang He - On evaluation of stress intensity factor from far and near vertex fields	11:40	12:00	Dr Ehab Hamed - Creep buckling of sandwich panels made with visco-elastic core	
	11:40	12:00	Dr Ribello Torregosa - A bounded distribution model of equivalent initial flaw size distribution for structural risk analysis			Mr Wei Han - Synergistic effects of HNTs and APTEs on polystyrene enhancement	
	12:00	1:00	Lunch (1 hour) Napier G03 Dr Chris Wallbrink	12:00	1:00	Lunch (1 hour) Napier G03 Prof Elena Pasternak	
PM	1:00	1:30	Plenary talk - Prof Di Zhang (Shanghai Jiao Tong University) Morphology-genetic materials inspired from nature species	1:00	1:30	Plenary talk - Senior Prof Kiet Tieu (University of Wollongong) Tribology in steel rolling technology	
	1:30	1:50	Mr Dylan Agius - Fatigue analysis of transport aircraft structures using advanced cyclic plasticity models	1:30	1:50	Prof Arcady Dyskin - The role of bridge cracks in hydraulic fracturing	
	1:50	2:10	Dr Turk Suzana - Microstructural implications of sulphuric acid surface treatment on the fatigue life of AA7050-T7451 aluminium alloy	1:50	2:10	Mr Shengzhe Wang - High strain rate behavior of unsaturated sand	
	2:10	2:30	Prof Gan-Yun Huang - On the onset of local sliding through dislocation nucleation in the adhesive contact under a tangential force	2:10	2:30	Mr Chengjun Yu - A constitutive model for cemented geomaterials	
	2:30	2:50	Dr Kai Duan - Analysis and prediction of brittle fracture of an aluminium cast alloy using asymptotic boundary effect model	2:30	2:50	Mr Junxian He - Acoustic emissions monitoring of hydraulic fractures: fracture geometry and aftershocks	
	2:50	3:10	Dr Xiaobo Yu - Crack path of aluminium alloy 7075-T651 under proportional and non-proportional mixed mode I and II fatigue loading	2:50	3:10	Mr Peng Zhang A new kind of analytical singularity element and its application in cohesive zone model based cracks	
	3:10	3:30	Afternoon Tea (20 min) Napier G03 A/Prof Wenyi Yan	3:10	3:30	Afternoon Tea (20 min) Napier G03 Prof Hao Wang	
	3:30	4:00	Plenary talk - Prof Brian Uy (UNSW) Advances in steel-concrete composite structures in civil engineering	3:30	4:00	Plenary talk - Prof Arcady Dyskin (University of Western Australia) Fractures in materials with microrotations: rational approach	
	4:00	4:20	A/Prof Wenyi Yan - Design optimisation of axisymmetric/prismatic structures by applying BESO method	4:00	4:20	Dr Xing Ma - Contact buckling phenomena in composite components	
	4:20	4:40	Mr Maxim Khudiyakov - Optimal through holes in osteomorphic elements	4:20	4:40	Dr Hassan Karampour - Test procedures for investigating the buckle propagation of pipe-in-pipe systems	
4:40	5:00	Dr Kazem Ghabraie - Towards accurate sensitivity analysis of structural systems	4:40	5:00	Mr Ali Naem S. Alamyry - Low velocity impact (LVI) performance of nano-modified epoxy resin/fiberglass composites by MWCNTs		
From 3:00 pm to 6:30 pm: Welcome Drinks the University of Adelaide Club **	Australian Fracture Group Meeting (all welcome)			From 18:30 till late: Conference Dinner *** (3 course menu and wine package for 3 hours) Through full length 180° windows, guests enjoy breathtaking panoramic views sweeping from St Vincent's Gulf to the Adelaide Hills.**	Departure		

*https://www.adelaide.edu.au/campuses/maps/current/north_terrace.pdf

**<http://www.adelaide.edu.au/clubs/uniclub/> - Drinks (beer, wine, coffee, etc) and light snacks will be provided

***<http://windypoint.com.au/> - Bus transfer will be organised (Bus will depart from the University at 18:00 pm - sharp; return at around 11:00 -11:30 pm)