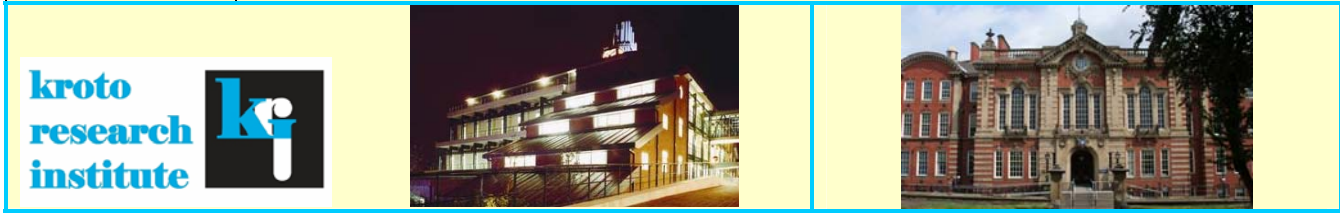


**10<sup>th</sup> Deformation and Fracture of Composites (DFC 10)  
Conference Programme**

14 <sup>th</sup> April 2009, 7PM, <i>ARRIVAL &amp; WELCOME RECEPTION: Mappin Hall, Sir Frederick Mappin Building, Mappin Street, S1 3JD, Sheffield. All welcome.</i>				
<b>DAY 1, 15<sup>th</sup> April 2009</b> , Conference Room, Kroto Research Institute, Broad Lane				
9.15	<b>Opening of DFC 10: Professor Constantinos Soutis</b>			
<b>Chair:</b> R. Young, University of Manchester				
9.30	P1	<b>Plenary Session</b>	Frank R. Jones, The University of Sheffield	Defining Interfaces and Interphases
<b>10.15 – 10.35</b>	<b>Coffee &amp; Tea</b>			
<b>SPECIAL SESSION ON COMPOSITE INTERFACES AND INTERPHASES</b>				
<b>Part I: Micromechanics of Composite Interfaces</b>				
10.35 – 10.55	T1	Daniel Wagner, The Weizmann Institute of Science	<b>Invited Lecture:</b> Nanotube And Nanocomposite Mechanics: A Guide To The Perplexed	
10.55 – 11.15	T2	S. J. Eichhorn, University of Manchester	Measuring Stresses In Glass Fibres Using Luminescence Spectroscopy	
11.15 – 11.35	T3	J. Varna, Lulea University of Technology	Released Energy Based Analysis Of Fiber/Resin Debond Growth In Fatigue	
11.35 – 11.55	T4	L. Gorbatikh, Katholieke Universiteit Leuven	Microstructure Representative Parameters For 3D Composites And Their Feasible Regions	
11.55 – 12.15	T5	T. Swait, The University of Sheffield	A TOF-SIMS Study Of Interphase Failure In Plasma Polymer Coated Glass Fibre Composites	
<b>12.15 – 13.30</b>	<b>Lunch</b>			
<b>Part II: Micromechanics of Composite Interfaces</b>				
<b>Chair:</b> S. Lomov, Katholieke Universiteit Leuven				
13.30 – 13.50	T6	R. Young, University of Manchester	Stress Transfer Within Double-Walled Carbon Nanotubes In Composites	
13.50 – 14.10	T7	E. Mäder, Leibniz Institute of Polymer Research Dresden	Multifunctional Effects By Nanostructured Interphases	
14.10 – 14.30	T8	G. Marom, The Hebrew University of Jerusalem	The Combined Effects Of Interfacial Interaction And Confinement On Edge-On And Flat-On Morphologies In Thin And Ultrathin Films Of LLDPE	
14.30 – 14.50	T9	J. L. Thomason, University of Strathclyde	A Physical Approach To Interfacial Strength In Natural Fibre Reinforced Composites	
14.50 – 15.10	T10	P.W.M. Peters, DLR, Institute of Materials Research	The Fibre/Matrix Interface And Its Influence On Physical And Mechanical Properties Of Cu-MMC	
15.10 – 15.30	T11	S. Lurie, Institute of Applied Mechanics Leninskii	Application Of Gradient Theory Of Solids With Cohesion-Adhesion Interactions For Descriptions Of Dynamic Properties Of Microstructures	
<b>15.30 – 15.50</b>	<b>Coffee &amp; Tea</b>			
<b>Fracture and Damage Tolerance, Failure Criteria</b>				
<b>Chair:</b> C. Soutis, The University of Sheffield				
15.50 – 16.10	T12	W. Cantwell, University of Liverpool	Scaling Effects In The Low Velocity Impact Response Of Fibre Metal Laminates And Composite Materials	
16.10 – 16.30	T13	F. Gehrig, Technische Universität Hamburg-Harburg	Influence Of Voids On The Compressive Strength Of CFRP	
16.30 – 16.50	T14	D. Katerelos, Luleå University of Technology	Secondary Damage Evolution In Composites: Effect Of Ply-Thickness And Orientation	
16.50 – 17.10	T15	G. Zhou, Loughborough University	Investigation Of In-Plane Compressive Behaviour In Composite Honeycomb Sandwich Panels	

17.10 – 17.30	T16	N. Nordin, University of Mara Technology	Fracture Behaviour Of FML Trough Tensile And Impact Test
17.30 – 17.50	T17	D. Ivanov, Katholieke Universiteit Leuven	Damage Modelling of Textile Composites: The Least Damaging Entity

**18.00** **Poster session and drinks, Mappin Hall**



DFC 10 Conference venues: Left, Kroto Research Institute and right, Sir Frederick Mappin Building

**DAY 2, 16<sup>th</sup> April 2009**, Conference Room, Kroto Research Institute, Broad Lane

**Chair:** F. R. Jones, The University of Sheffield

9.00	P2	<b>Plenary Session</b>	Paul T. Curtis, DSTL	Military Requirements For Composite Materials And Structures
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**Fracture and Damage Tolerance, Failure Criteria**

9.50 – 10.10	T18	S. Lomov, Katholieke Universiteit Leuven	Stiffness Degradation Schemes In Damage Modelling: Pro And Contra
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10.10 – 10.30	T19	S. Stutz, EPFL	Investigations Into The Contribution Of Bridging Traction To Mode I Delamination
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**10.30 – 10.50** **Coffee & Tea**

**Chair:** D. Wagner, The Weizmann Institute of Science

10.50 – 11.10	T20	V. Kostopoulos, University of Patras	Bearing Failure Of Mechanically Fastened Fiber-Reinforced Laminated Composite Joints
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11.10 – 11.30	T21	R. Butler, University of Bath	Compressive Strength Of Laminates Following Free Edge Impact
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11.30 – 11.50	T22	R. Giannoccaro, The University of Sheffield	Open Hole Compressive Strength Of Composite Laminates And Sandwich Panels: A Comparison Between The Budiansky-Fleck-Soutis Model And Experiments
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11.50 – 12.10	T23	J.A. Viña Olay, University of Oviedo	Influence Of The Matrix Type In Carbon-Epoxy Composites On Delamination Under Mode-I Dynamic Fracture
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12.10 – 12.30	T24	R. S. Choudhry, The University of Manchester	Modelling Failure And Damage Growth In Lap Joints Of Woven GFRP Composites – A Comparison Of Failure Modes
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**12.30** **Lunch**

**Damage Detection and Repair**

**Chair:** E. Mäder, Leibniz Institute of Polymer Research Dresden

13.30 – 13.50	T25	S. Ogin, University of Surrey	Disbond Detection In A Composite Bonded Joint Using A Chirped FBG Sensor Embedded Within The Adhesive Bondline
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13.50 – 14.10	T26	M. Sultan, The University of Sheffield	Impact Damage Detection and Quantification for CFRP Laminates
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14.10 – 14.30	T27	P. Bailey, The University of Sheffield	Novel Interlayers for Self-Healing Sandwich Structures
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14.30 – 14.50	T28	S. Hayes, The University of Sheffield	Self Sensing Composites for Structural Health Monitoring
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14.50 – 15.10	T29	J. Palaniappan, University of Southampton	Repair Efficiency Studies on Resin Infused Scarf Repaired Composite Structure
15.10 – 15.30	T30	W. Staszewski, The University of Sheffield	Impact Damage Detection in Composite Structures Using Nonlinear Acoustics
<b>15.30</b>		<b>Coffee &amp; Tea</b>	
<b>Damage Modelling &amp; Evaluation</b>			
<b>Chair: Dr. S. Hayes, The University of Sheffield</b>			
15.50 – 16.10	T31	D. Saravanos, University of Patras	Evaluation of Delamination Detection in Composites with Active Piezoelectric Actuators and Sensors using High Frequency Guided Lamb Wave Techniques
16.10 – 16.30	T32	V. V Silberschmidt, Loughborough University	Mixed Mechanism Fatigue Fracture of Bonded CFRP Joints
16.30 – 16.50	T33	G. Nicoletto, University of Parma	Experimental Validation of Computational Mesoscopic Strains in Woven CFRP Laminas
16.50 – 17.10	T34	J. Foreman, The University of Sheffield	Hierarcchical Modelling of Composite Strength as a Function of Strain Rate
17.10 – 17.30	T35	C. Ulianov, Newcastle University	Probabilistic and Statistical Modelling of Long-Term Behaviour of Composites Structures
17.30 – 17.50	T36	P. Potluri, University of Manchester	Strain Gradients Around Holes in Composite Laminates
17.50 – 18.10	T37	H. Hosseini-Toudeshky, Amirkabir University of Technology	Prediction of Delamination Initiation and Propagation of Laminated Plates Under Buckling Using De-cohesive Law and Layer-Wise Finite Element Method
18.10 – 18.30	T38	A. Dumansky, Russian Academy of Sciences	Interrelation of viscoelastic properties of layered fiber reinforced plastics
<b>20.00</b>	<b>Conference Banquet: Millennium Galleries</b>		



Conference Banquet Venue: Millennium Galleries in Sheffield

<b>DAY 3, 17<sup>th</sup> April 2009</b> , Conference Room, Kroto Research Institute, Broad Lane			
<b>Chair: V. Kostopoulos, University of Patras</b>			
9.00	P3	<b>Plenary Session</b>	Alex Baidak Cytec Engineered Materials Engineering the fracture behaviour of composite materials to enable the future challenges in aerospace applications: an integrated approach
<b>Part I: NOVEL COMPOSITES</b>			
9.50 – 10.10	T39	<b>Invited Lecture</b> Brendon Weager, NetComposites	Development of Bio-Based Composites for High Performance Applications
10.10 – 10.30	T40	W. Lyoo, Yeungnam University	Electrospinning of High Molecular Weight Poly(acryl amide) Solutions
<b>10.30</b>		<b>Coffee &amp; Tea</b>	
<b>Part II: NOVEL COMPOSITES</b>			
<b>Chair: S. Ogin, University of Surrey</b>			
10.50 – 11.10	T41	L. Yang, University of Strathclyde	A Comparison of Glass Fibre-PP Interface Strength Measured Using the Fibre Pull-out and Microdebond Methods.

11.10 – 11.30	T42	J. Chen, East China University of Science and Technology	Toughened PA66/PA6 Ternary Nanocomposites by Elastomers
11.30 – 11.50	T43	A. Kalam, Universiti Teknologi MARA	Influence of Fiber Length on the Mechanical Properties and Fracture Surface of Oil Palm Fruit Bunch Fibre Filled PP Composites
11.50 – 12.10	T44	A. Hodzic, The University of Sheffield	Influence of additives and manufacturing methods in Natural Fibre Composites
12.10 – 12.30	T45	Z. Salleh, Universiti Teknologi MARA	Fracture Toughness of Kenaf Fiber Epoxy Composites
<b>12.30</b>		<b>Lunch</b>	
<b>VULCAN</b>		<b>Special Session On The Influence Of Blast And Fire On Composite Structures</b>	
<b>Chair: V.V Silberschmidt, Loughborough University</b>			
13.30 – 13.50	T46	V. Kostopoulos, University of Patras	Blast Response of Composite Fuselage Structures Using Finite Element Modelling
13.50 – 14.10	T47	J. Mediavilla Varas, TNO DSS	Dynamic Crack Propagation of Glare and CFRP Fuselage Materials
14.10 – 14.30	T48	G. Mohamed, The University of Sheffield	Numerical Investigation of Fibre-Metal Laminates Subjected to Blast Loading
14.30 – 14.50	T49	J. Vantomme, Royal Military Academy Belgium	Analysis of Flat Aircraft Fuselage Panels Under Blast Loads
14.50 – 15.10	T50	S. Palanivelu, Ghent University	Blast Energy Absorption of Recyclable Beverage Cans and Composite Tubes for Sacrificial Cladding Structures
15.10 – 15.30	T51	C. Soutis, The University of Sheffield	A Numerical Simulation of Glare Plates Subjected to High Velocity Impact and Blast Loading
<b>15.30</b>		<b>Coffee &amp; Tea</b>	
<b>Chair: A. Hodzic, The University of Sheffield</b>			
15.50 – 16.10	T52	V. Kostopoulos, University of Patras	Finite Element Modelling of the Fire Burnthrough Response of Laminated CFRP and Glare Flat Plates. Comparison With Experimental Results.
16.10 – 16.30	T53	G. La Delfa, Newcastle University	Damage Assessment of Aircraft Primary Structures Following Fire Exposure
16.30 – 16.50	T54	M. Galatoulas, INASCO	Fast Solution of Fire Burnthrough Problem Using Kriging Approximation Method
<b>17.00</b>		<b>Closing of DFC 10</b>	

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