



COST Action 21155 Training School, University of Belgrade, 5th - 7th March 2024

Simulation methods and best practices for composites under high strain rates

Tuesday 5th March		
Time	Session Title	Lect
09:00	Wellcome & Training School Introc	ND
	Introduction on Composites and the simulation methods used for composites	RV
10:45	Coffee	
	Constitutive Modelling (fracture mech, damage and multiscale, strain rate dependency, dumping shock formation and propagation, modelling of healing)	IS DM
13:00	Lunch	
	Modelling of Manufacturing Processes including proballistic FEM	HS
15:00	Introduction Machine Learning and Artificial Intelligence applied to modelling composites	TG
16:00	Leasson Learned/Discussion	
16:30	End of Day 1	
19:00	Networking Dinner	

Wednesday 6th March		
Time	Session Title	Lect
09:00		
	Spatial discretisation (FEM, xFEM, Remeshing, Meshless methods, Hybrid)	TDV
10:45	Coffee	
	Low Velocity Impact; Energy Absorption and Crashworthiness modelling	AH
13:00	Lunch	
	LS Dyna Practical Tutorial Hands On Examples Introduction and Modelling of standard tests)	AHa
16:00	Leasson Learned/Discussion	
16:30	End of Day 2	
19:30	Training School Dinner	

Thursday 7h March		
Time	Session Title	Lect
09:00		
	High Velocity Impact; Elastic Wave propagation in composite materials including shock loading	ND
10:45	Coffee	
	Introduction to Model Verification and Validation, Standardisation and Certification by analysis	FS
13:00	Lunch	
	LS Dyna Practical Tutorial Hands On (Birds strike modelling and Axial collapse of Crash tubes)	AHa ND
15:45	Leasson Learned/Discussion	
16:15	Concluding Remarks End of TS	RV

Lecturer

RV	Prof Rade Vignjevic	AHa	Dr Andre Haufe	DM	Dr Dayou Ma
ND	Dr Nenad Djordjevic	IS	Prof Ivica Smojver	TG	Dr Tijana Geroski
AH	Dr Andreas Hornig	TdV	Dr Tom De Vuyst	HS	Dr Hatice Sas
FS	Dr Fabio Santandrea				