UNIVERSITÀ DI TRENTO
Dipartimento di Ingegneria Industriale

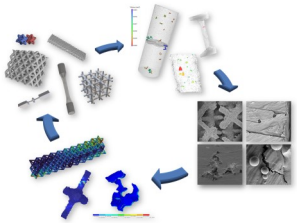
POLITECNICO MILANO 1863

UNIVERSITÀ DEGLI STUDI DI PADOVA

BAM

5th International Symposium on Fatigue Design and Material Defects

Exploring the Frontiers:
Unraveling Challenges in
Fatigue Design and Material Defects



PRELIMINARY PROGRAMME

14.5.2025	08:00	Registration	
	09:00	Opening Address - Benedetti, Beretta, Madia, Meneghetti	
	09:15	Plenary Lecture 1	
	10:00	Advances in Additive Manufacturing: Fatigue and Defect Characterization 1	Fracture Mechanics and Fatigue Modelling: Novel Approaches 1
	11:00	Coffee Break	
	11:30	Advanced Characterization Techniques for Fatigue Analysis 1	High-Cycle and Very-High-Cycle Fatigue: Experimental Insights and Applications 1
	13:00	Lunch Break	
	14:30	Plenary Lecture 2	
	15:15	Defect-Tolerant Design in Metallic Materials 1	Surface Roughness and Microstructural Effects in Fatigue Performance 1
	16:00	Coffee Break	
	16:30	Lattice Structures and Metamaterials: Fatigue Behavior and Applications	Industrial Applications of Fatigue Research: Case Studies and Innovations 1
	18:30	Welcome drink	
15.5.2025	09:00	Plenary Lecture 3	
	09:45	Advanced Characterization Techniques for Fatigue Analysis 2	Thermal and Environmental Effects on Fatigue Life
	11:00	Coffee Break	
	11:30	Cast alloys	Advances in Additive Manufacturing: Fatigue and Defect Characterization 2
	13:00	Lunch Break	
	14:30	Plenary Lecture 4	
	15:15	Repair and fatigue improvement	High-Cycle and Very-High-Cycle Fatigue: Experimental Insights and Applications 2
	16:00	Coffee Break	
	16:30	Surface Roughness and Microstructural Effects in Fatigue Performance 2	Defect-Tolerant Design in Metallic Materials 2
	19:30	Gala dinner	
16.5.2025	09:00	Advances in Additive Manufacturing: Fatigue and Defect Characterization 3	Fracture Mechanics and Fatigue Modelling: Novel Approaches 2
	10:30	Coffee Break	
	11:00	Advances in Additive Manufacturing: Fatigue and Defect Characterization 4	High-Cycle and Very-High-Cycle Fatigue: Experimental Insights and Applications 3
	12:30	Lunch Break	
	14:00	Emerging Technologies in Fatigue Prediction and Life Assessment	Advances in Additive Manufacturing: Fatigue and Defect Characterization 5
	16:00	Closing Remarks - Benedetti, Beretta, Madia, Meneghetti	

= Session with initial Keynote Lecture