

ECF 22 - LOADING AND ENVIRONMENT EFFECTS ON STRUCTURAL INTEGRITY 26 – 31 August 2018
SUMMER SCHOOL 25-26 August 2018, Belgrade, Serbia
www.ecf22.rs

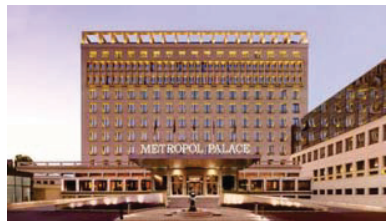


Location and Transportation

Belgrade is the capital of Serbia, with cca 1.8 million inhabitants. It is located in the south-east Europe, in the Balkan Peninsula, at the confluence of the Sava and Danube rivers. The official monetary unit is dinar (RSD). International airport "Nikola Tesla" offers services not only by domestic airlines (Air Serbia), but also by many other companies, including low cost companies. Transfer from the airport to the city center is easy using mini-bus or using taxi (20 euros). The highway network enables frequent bus connection between major European cities, and comfortable travel by car to Belgrade. Train connections are also possible.

Venue

Metropol Palace, a Luxury Collection Hotel, Bulevar Kralja Aleksandra 69, Belgrade, Serbia. More details on accommodation on www.ecf22.rs.



<http://www.metropolpalace.com/>

Registration and fees

Registration fee *	Before 20.2.2018	Before 20.6.2018	After 26.8.2018
Regular	530 €	580 €	630 €
ESIS member	450 €	500 €	550 €
Students	150 €	150 €	200 €
Accompanying persons	150 €	150 €	200 €

* on-site cash payment will be possible

The registration fee includes conference material, welcome reception, conference banquet, refreshments and lunch during conference days.

Payment will be possible by bank transfer, credit cards, pay-pal and on-site in cash, see www.ecf22.rs.

Main topics

Loading types

- static and quasi-static loading
- cyclic loading of variable amplitudes (high cycle-loading well below yield stress; low cycle loading after initial yielding)
- vibrations
- impact and earthquake loading
- combined loading

Environment

- corrosion
- high operating temperatures
- temperatures in the range of nil ductility transition (NDT) and below it
- combined environmental effects
- hydrogen embrittlement

Structures

- power plants
- process equipment in petrochemical industry
- welded structures
- civil engineering objects
- transportation

Materials

- metallic materials
- plastics
- ceramics
- composite materials
- nanomaterials

Plenary lecturers:

Jim Rice, Boston, USA, Perspectives on dynamic fracture arising from study of earthquake ruptures
Jovo Jaric, Serbia, Conservation laws of J integral type
Youshi Hong, China, The State of the Art in Very-High-Cycle Fatigue Research
Uwe Zerbst, Germany, Application of fracture mechanics to S-N curve prediction. Requirements and perspectives
Drazan Kozak, Croatia & **Nenad Gubeljak**, Slovenia, Fracture behavior of wrought and additive manufactured implant's alloy
Yonggang Huang, USA, Soft Network Composite Materials with Deterministic and Bio-Inspired Designs
Robert Ritchie, USA, Damage Tolerance in Biological and Metallic Material
Takayuki Kitamura, Japan, Challenge toward Nanometer Scale Fracture Mechanics
William Curtin, Switzerland, Mechanisms of Hydrogen Embrittlement: Insights from Atomistic Studies
Meinhard Kuna, Germany, Micromechanical Modeling of Fracture in Metallic Materials"

Proceedings and Publication

Abstracts will be published in the form of ECF22 e-book and available during the registration. Full papers will be published in Proceedia Structural Integrity journal by Elsevier in the form of ECF22 Proceedings. Authors of selected papers will be invited to submit extended versions of papers for a special issue of "Engineering Fracture Mechanics", "Engineering Failure Analysis", "International Journal of Fatigue" or "Theoretical and Applied Fracture Mechanics", as well as Structural Integrity and Life (DIVK Journal) journals.

Minisymposia

Siegfried Schmauder & Zeljko Bozic, „Multiscale Damage Analysis of Fatigue and Fracture of Metals“
Vadim Silberschmidt "Damage and Fracture of Biological and Biomedical Materials"
Filippo Berto and Luca Susmel, "Structural integrity of Additive Manufactured materials"
PetroYasnii and Liviu Marsavina „Teaching of Structural Integrity“
Jacques Besson, „Numerical Methods in Fracture Mechanics“
Uwe Zerbst, Stefano Beretta, "Defects and fatigue"
Yuri Petrov, Vadim Silberschmidt, "Fracture and Structural Transformations under High Rate and Impact Loading"
Peter Trampus, Non-destructive methods in Fracture Mechanics
Jose Antonio Correia, Vladimir Moskvichev, Risk Analysis and Safety of Technical Systems.
Milos Djukic, William Curtin, Zhiliang Zhang, Recent Advances on Hydrogen Embrittlement Understanding and Future Research Framework

ESIS Support for researchers: <http://www.structuralintegrity.eu/site/pdf/ecf22/ESIS%20Support%20for%20Researchers%20Announcement.pdf>

ESIS AWARDS: <http://www.structuralintegrity.eu/site/pdf/ecf22/ESIS%20AWARDS%20-%20CALL%20FOR%20PROPOSALS.pdf>

ESIS Elsevier young scientist award: <http://www.structuralintegrity.eu/site/pdf/ecf22/ESISELSEVIER%20YOUNG%20SCIENTIST%20AWARD.pdf>

Best paper in weldment fracture mechanics:

<http://www.structuralintegrity.eu/site/pdf/ecf22/AWARD%20for%20the%20best%20paper%20on%20WFM%20Galip.pdf>

Preliminary Timetable

Time	Monday, 27.8	Tuesday, 28.8	Wednesday, 29.8	Thursday, 30.8	Friday, 31.8
08:00	Registration	Registration			
08:30		Plenary session – Youshi Hong Uwe Zerbst	Plenary session Robert Ritchie Yonggang Huang	Plenary session Takayuki Kitamura William Curtin	Parallel sessions
09:00	OPENING CEREMONY				
10:15	Honorary lecture James Rice				
10:30	Coffee Break		Coffee Break		
11:00	Parallel sessions		Parallel sessions		Coffee Break
11:30			Parallel sessions		Parallel sessions
12:00	Lunch Break				Parallel sessions
13:00			Lunch Break		Parallel sessions
13:30	Lunch Break				Lunch Break
14:00			Lunch Break		Lunch Break
14:30	Plenary session Jovo Jaric				Plenary session Meinhard Kuna
15:00			Plenary session Drazan Kozak & Nenad Gubeljak		Plenary session Meinhard Kuna
15:45	Coffee Break				Coffee break
16:00			Special session for young scientists best paper 75 minutes		Parallel sessions
17:00	Parallel sessions ExCo meeting				
18:00			Parallel sessions Technical Committees		Parallel sessions
18:30	Parallel sessions				
19:00			Parallel sessions		Parallel sessions
19:30	Parallel sessions				
20:00			Parallel sessions		Parallel sessions
21:00	Parallel sessions				
22:00			Parallel sessions		Parallel sessions
	Cultural Programme				
	Belgrade visit by boat		ESIS council		

Important dates

Submission of Abstracts: 31.1.2018
Notification of Acceptance: 15.2.2018
Deadline for early Registration: 20.2.2018
Submission of Papers: 30.4.2018
Deadline for Registration: 20.6.2018

Registration on-site is also possible!

Local Organizing Committee

- Aleksandar Sedmak, the chairman, asedmak@mas.bg.ac.rs
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- Snežana Kirin, co-chairman
- Miloš Milošević, co-chairman
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			Radivoje Mitrovic	Ingo Scheider

SUMMER SCHOOL: Two-day event is offered to young researchers, with world's leading experts in the field.

5th Fracture mechanics Summer School – Belgrade, Serbia, 25-26th August 2018

25.8.2018, Saturday		
9:00-10:45 FME, room 211	Basics of experimental fracture mechanics, linear elastic and elastic-plastic crack growth	John Landes, USA
10:45-11:00 FME, 210	Coffee break	
11:00-12:45 FME, room 211	Basics of experimental fracture mechanics, fatigue crack growth	Francesco Iacoviello, Italy
12:45-14:00, FME, restaurant	Lunch, transfer to the Laboratory	
14:00-17:00 MTI, Zarkovo	Experimental work at the Laboratory	John Landes, Francesco Iacoviello Blagoj Petrovski, Zijah Burzic
26.8.2018, Sunday		
9:00-11:00 FME, room 211	Deformation and fracture of polymers and composites	Bamber Blackman, UK
11:00-11:30 FME, 210	Coffee break	
11:30-12:45 FME, room 211	Interface fracture mechanics	Leslie Banks-Sills, Israel
12:45-13:45, FME, restaurant	Lunch	
13:45-15:00 FME, room 211	Interface fracture mechanics	Leslie Banks-Sills, Israel
15:00-15:30 FME, 210	Coffee break	
15:30-17:00 FME, amphitheater A	J integral - on the occasion of the 50th anniversary Open for all participants	James Rice, USA

FME – Faculty of Mechanical Engineering; Kraljice Marije 16, Belgrade

MTI - Military-Technical Institute, Ratka Ristanovica 1, Zarkovo, Belgrade

Fee (125 € before 20.6.2018, 150 € afterwards) includes lectures, refreshments and buffet lunch.

Social Program

Welcome Reception will be held on Sunday, August 26th evening from 19:00 to 22:00, Faculty of Mechanical Engineering, Kraljice Marije 16, Belgrade

Cultural programme will be organized on Monday evening, August 27th, from 19:00 to 22:00.

Belgrade visit by boat will be organized on Tuesday evening, August 28th, from 19:00 to 22:00.

Conference Dinner, including cultural programme, will be served on Thursday evening.

There will be different one-days excursions every day from Monday till Friday, covering the most important historical and cultural sites in Serbia (Vinča archeological site (5500 BC), Viminacium, once the capital of the Roman province Mesia Superior, Lepenski Vir, archeological site (7500 BC),

Fruska Gora monasteries and wineries, Novi Sad, Petrovaradin and Sremski Karlovci, monasteries in central Serbia (Manasija, Resava, Studenica, Zica)

Post conference tours (one or two day) will also be offered.



Monastery Studenica



Figurine - Vincha "Foremother" Lepenski Vir



Sremski Karlovci



Petrovaradin fortress

Recommended hotels and privileged prices for conference participants

	Hotel	Single room	Double room	Website
1.	Metropol Palace a Luxury Collection Hotel	95 €	110 €	http://www.metropolpalace.com
2.	Hotel Zira	85 €	95 €	http://www.zirahotels.com
3.	HOTEL CONSTANTINE THE GREAT BELGRADE	80 €	85 €	www.constantinethegreatbelgrade.com
4.	Holiday Inn Express Belgrade	59 €	64 €	www.holidayinnexpress.com/belgrade
5.	Boutique Hotel Tash	30 €	40 €	www.hoteltash.com

For more details visit www.ecf22.rs or send an email to ecf22conference@gmail.com