



# European Conference on Fracture 2024

August 26 - 30, 2024  
Zagreb, Croatia



European Structural Integrity Society



Sveučilište u Zagrebu  
Fakultet strojarstva i brodogradnje



The 24th European Conference on Fracture (ECF24) is organised by the European Structural Integrity Society (ESIS) and by the Faculty of Mechanical Engineering and Naval Architecture, University of Zagreb.

The objective of the ECF24 conference is to bring together scientists and engineers from around the world to discuss how to characterize, analyze, predict and assess the fatigue and fracture of structural materials and components. ECF24 intends to be a forum for discussion of the present and future trends in experimental, theoretical and applied fracture mechanics, fatigue, structural integrity assessment, failure analysis, and other important topics in the field.

The ECF24 conference will be organized on-site at the MOZAIK EVENT CENTER in Zagreb. Participants are welcome to present their Abstracts as oral or poster presentations, according to their preference. Being globally hit by the recent pandemics and difficulties with organizing travels, online presentation and participation in the ECF24 conference will be enabled as well, to guarantee the maximum safety and conveniences for the participants.

## Important dates

Abstract submission:  
**Possible further on**

Notification on abstract:  
**Within two weeks upon abstract submission**

Early registration:  
**May 31, 2024**

Submission of full paper (optional):  
**October 1, 2024 (after the conference)**



## Conference Topics

- Analytical, computational and physical models
- Artificial Intelligence in Structural Integrity Modelling and Analysis
- Biomaterials and wood fracture and fatigue
- Biomechanics
- Ceramics fracture and damage
- Composites
- Computational mechanics
- Concrete & rocks
- Corrosion fatigue
- Creep
- Damage mechanics
- Databases, expert systems and software
- Durability of structures and components
- Environmentally assisted degradation and cracking
- Experimental fracture mechanics
- Failure analysis and case studies
- Fatigue crack growth modelling and analysis
- Fatigue and fracture of weldments, welded components, joints and adhesives
- Fatigue of metals – low, medium, high and very high cycle fatigue
- Fatigue resistance of metals
- Fractography and advanced metallography
- Fatigue and fracture at atomistic and molecular scales
- Fatigue and fracture testing systems
- Fretting fatigue and wear
- Impact and dynamics
- Innovative alloys
- Integrity of 3D-printed structures
- Linear and nonlinear fracture mechanics
- Low, medium and high cycle fatigue
- Machine Learning in Structural Integrity Assessment
- Mesomechanics of fracture
- Micromechanisms of fracture and fatigue
- Mixed-Mode and multiaxial fatigue and fracture
- Models, criteria and methods in fracture mechanics
- Multiscale experiments and modelling
- Nanostructured materials
- Nondestructive testing and evaluation
- Physical aspects of brittle fracture
- Physical aspects of ductile fracture
- Polymers fatigue and fracture
- Probabilistic fracture mechanics
- Reliability and life extension of components
- Residual stress effects
- Sandwiches, joints and coatings
- Smart materials
- Structural integrity
- Surface treatment and failure resistance improvement
- Temperature effect
- Thin films
- Vibration fatigue



## Registration Fees

The registrations fees, with early bird registration applicable to registrations including full payment before May 31, 2024, are:

| Participation fee          | Before<br>May 31, 2024 | After<br>May 31, 2024 |
|----------------------------|------------------------|-----------------------|
| Regular                    | € 750                  | € 800                 |
| Regular +<br>Summer School | € 900                  | € 950                 |
| Student                    | € 400                  | € 450                 |
| Student +<br>Summer School | € 550                  | € 600                 |
| Accompanying persons       | € 180                  | € 200                 |

ESIS members discount: € 50,00

The above listed prices include VAT (25%).

The registration fees include: conference bag with accessories, Book of Abstracts on electronic media, welcome reception, coffee breaks, lunches, conference dinner and social program, admission to all scientific sessions, publication of a full paper (after review) in the ECF24 Special Issue Procedia Structural Integrity.

Accompanying Person registration fees include welcome reception, conference dinner and social program.

## Contact

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