

Dear Colleague,

I invite you to submit an abstract to the Symposium

**“Damage and Fracture of Biological and Biomedical Materials”**

organised by Technical Committee 14 “Integrity of Biomedical and Biological Materials” of the European Structural Integrity Society within the framework of the 22<sup>nd</sup> European Conference on Fracture - ECF22 to be held in Belgrade, Serbia, 26-31 August 2018 (see <http://www.ecf22.rs/>). **The deadline for the abstracts is 31 January 2018.**

The aim of this Symposium is to bring together specialists in mechanics and micromechanics of materials, applied mathematics, continuum mechanics, materials science, physics, biomechanics and medical engineering to discuss latest developments and trends in characterisation and testing protocols for biomedical materials as well as biological tissues and organs (both *in vivo* and *in vitro*), constitutive equations of their behaviour and advanced numerical simulation schemes.

The topics of the Symposium include, but are not limited to, the following:

- Structural integrity of implants (orthopaedic, dental, cardiovascular, etc.);
- Fatigue, creep and biodegradation of biomedical materials used in implants;
- Structural integrity of prostheses;
- Mechanical performance of biomedical materials *in vivo*;
- Structural integrity of 3d-printed biomedical components and structures;
- Bio-inspired and biomimetic materials and structures;
- Mechanical characterisation of artificial tissues and scaffolds;
- Mechanics of cells;
- Fracture mechanics of biological tissues;
- Damage in hard and soft biotissues;
- Response of biological tissues and biomedical materials to dynamic loading;
- Numerical simulations of properties and performance of biological and biomedical materials.

A selection of papers presented at this Symposium will be published in a Special Issue of ***Engineering Fracture Mechanics***.

IMPORTANT:

1) When submitting your abstract please mention the name of Symposium - **“Damage and Fracture of Biological and Biomedical Materials”**.

2) Please inform me about your submission/intention to submit so that I could plan Symposium’s sessions.

With best regards,

Vadim Silberschmidt

ESIS TC14 Chair