

1st Biennial ESIS-CSIC Conference on Structural Integrity (BECCSI 2025), in period November 25-28, 2025 (www.beccsi2025.com)

Title of the minisymposia:



'TC-5 Fracture and Structural Transformations under High Rate and Impact Loading'

Prof. Yuri Petrov, Faculty of Mathematics and Mechanics, Saint Petersburg State University, Institute of Problems of Mechanical Engineering, Saint Petersburg, Russia e-mail:<u>yuripetr@gmail.com</u>

Prof. Chengzhi Qi, School of Civil and Transportation Engineering, Beijing University of Civil Engineering and Architecture, Beijing, China e-mail: <u>gichengzhi65@163.com</u>

Dr. Nikita Kazarinov, Institute of Problems of Mechanical Engineering, Saint Petersburg, Russia e-mail: nkazarinov@gmail.com

Dr. Shixiang Zhao, Faculty of Mathematics and Mechanics, Saint Petersburg State University, Saint Petersburg, Russia e-mail: zhaoshixiang@yandex.ru

Short description of the minisymposia:

The key objective of the Symposium is to prompt discussion and to enhance collaboration between researchers and specialists working in the area of dynamic fracture mechanics, high-rate and short-pulse loading with a special focus on behavior of materials under extreme loading conditions, experimental and numerical techniques and approaches, multiscale nature of the dynamic fracture processes.

The Minisymposium scope includes the following topics, however this list is not limiting:

- Experimental studies of dynamic fracture
- Approaches/criteria applied for prediction of fracture, irreversible deformations, and structural transformations under dynamic loading conditions
- Numerical simulations of dynamic fracture and structural transformations
- Hierarchy of scale levels and multiscale models of dynamic fracture
- Extreme states of materials and structures, seismic resistance
- Dynamics of fracture via atomistic simulations
- Fundamentals of new engineering standards for dynamic testing of materials
- Dynamic fracture of composites and heterogeneous materials
- Dynamics of fracture in crystals
- Machine learning techniques applied to dynamic fracture problems
- Dynamic fracture in discrete systems

Please, indicate on BECCSI registration and submission form

(https://www.beccsi2025.com/authorscenter/) that you want to participate to this minisymposia and send an email to <u>zhaoshixiang@yandex.ru</u> and <u>nkazarinov@gmail.com</u>.