

Symposium title:

## **Laser Shock Processing for Damage Tolerance Improvement and Life Extension**

Laser shock processing is an innovative technology that can be used to modify the microstructure and introduce deep compressive residual stresses in metallic structural materials. This thematic symposium will cover the various aspects of laser shock processing, including process physics, process effects on microstructure and residual stress state, and fatigue and fracture behaviour of laser shock processed metallic materials. One focus is on the characterization and modelling of fatigue and fracture behaviour taking into account inhomogeneous microstructures and residual stresses. Another focus is the use of the advanced residual stress engineering technique to improve damage tolerance and extend service life, as well as to repair local damage. Fatigue life prediction methods considering the residuals stress state play an important role in this respect.

Please, indicate on BECCSI registration and submission form (<https://www.beccsi2025.com/authors-center/>) that you want to participate to this minisymposia and send an email to [poa@icmm.ru](mailto:poa@icmm.ru).

Best regards

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