



Editorial - Report on the 1st Biennial ESIS-CSIC Conference on Structural Integrity

Hotel Metropol Palace, Belgrade, Serbia

BECCSI 2025, www.beccsi2025.com

Conference was held 4 days from 25th to 28th November, in Belgrade, Serbia. 320 registered participants from 32 countries (120 from China, 95 from Serbia, 105 from Europe and all over the world), with 250 presentations (oral, poster, plenary, special lectures) contributed to the success of the conference.

Venue for the first day was the Faculty of Mechanical Engineering where the Welcome cocktail, registration and Panel discussion took place. Panel discussion on “Approximately right vs. exactly wrong”, dedicated to Prof. Roderick Smith, was organized and moderated by Prof. Youshi Hong, with participation of Profs. Wanlin Guo, Hongbiao Dong, Shang Tung Tu, and by pre-recorded video (Ali Mehmanparast).

Starting from Wednesday, three days of intensive work followed, each day 3 plenary lectures and 2 parallel sessions in 3/4 rooms, in total 190 oral presentations.

The first plenary lecture was delivered by Prof. Wanlin Guo, followed by plenary lectures by Profs. Jianying He, Milos Djukic, Sabrina Vantadori/Francesco Iacoviello, Lixun Cai, Tong Liu, Binhun Sun, Filippo Berto and Jacques Besson. Parallel sessions (19 in total) were organized in the scope of the following mini-symposia, including keynote lectures:

- Advanced surface processing technologies for damage tolerance improvement and life extension,
- Synchrotron, lab-scale and industrial X-ray tomography for multiscale structural integrity,
- Analytical and computational analysis of mechanical components under static and dynamic loading,
- TC1 & TC8 - Numerical methods for solving elastic plastic fracture mechanics - joint topic,
- Data-driven and deep learning in action: smart monitoring, analysis and damage prediction for materials and structures,
- TC7 - Understanding damage mechanisms in additive manufacturing: fracture, fatigue, and future trends,
- TC03 & IGF - Fatigue and fracture behaviour in emerging and green materials,
- TC21 - Corrosion and hydrogen embrittlement of advanced materials
- TC12 - Multiscale aspects of structural integrity and safety of technical system,
- TC21 - Corrosion, structural integrity, and reliability of oil and gas and hydrogen pipelines,
- TC5 - Fracture and structural transformations under high rate and impact loading,
- TC18 - Recent advances in structural integrity assessment of welded joints.

Special lectures were delivered in the scope of Hydrogen embrittlement session (Prof. Hong Luo) and J. Rice's 85th birthday session (Profs. Aleksandar Sedmak, Zhiliang Zhang, Qian Zhengfang and Ruzica Nikolic).

The best student competition was held on Thursday. Six students presented their papers. The first prize went to Mengqi Li, the second to Gordana Marković, whereas the contributions of Shilin Xu, Qian Chen, Nai-Jian Dong and Nemanja Ilić were also recognized during the Conference dinner. The ad hoc introduced awards were also promoted, two Awards of merit for Dr. Branislav Djordjevic and Prof. Jian-Feng Wen, and Nikola Tesla medal for the innovative approach in solving fracture mechanics problems for Prof. Zhiliang Zhang.

Finally, the best poster award went to Nikola Božović, Marija Božović, Mladen Ćosić and Stevan Ćorluka for “Verification of results of pile integrity test”.

The 2nd BECCSI will be held in two years in 2027 in Shanghai, China. We believe that this conference will become one of the major international and intercontinental events in structural integrity community.

