FINITE ELEMENT MODELLING OF BEAMS IN ELEVATED TEMPERATURE
Benchmark problems

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During the presentation idea of benchmark problems and their importance will be shown. A proper FE benchmark should be verified by means of cross-checking of results obtained from different FE codes and, if possible, of analytical solutions. This problem was partially presented during ASFE 2013 conference in Prague, Czech Republic (Benchmark example problems for beams at elevated temperature; Sawicki B., Pełczyński J., Kwaśniewski L.). Current results, shown in feasible template proposed by prof. Ian Burgess will be presented, including considerations on different cross-sections (H-beam) and structural materials. Problems of FE modeling in LS-Dyna® commercial code will be emphasised. Plans for future works will be also presented, including examples with other cross sections, Eurocode stress-strain curves for structural steel and RC beams.