

SS06 : Short Time Procedures for Materials and Structural Assessment (Prof. Christian Boller, Chair of Non-Destructive Testing & Quality Assurance-LZfPQ, Universität des Saarlandes, Germany)

Evaluation of true material properties is a challenge continuously pursued in research, development and quality assurance, which can be extremely laborious, time consuming and costly. When compared to classical procedures and techniques in determining tensile, fatigue, corrosion or other materials' properties (even including their statistical parameters) on the one side, the options of modern technology related to electronics, mechanics, measurement, simulation, signal processing and/or sensing may provide better results. On the other hand, there is a significant potential on how materials testing and characterisation could be partially redefined such that more information can be retrieved from a material than it is done today. An interesting option in that regard is to combine the wide scope of non-destructive testing (NDT) performed on a macro, as well as on a micro scale, with procedures applied in destructive materials and possibly even structural testing. Papers are therefore welcome that address an enhancement in terms of materials' properties retrieval in a comparatively short time.

