

## **Full-field deformation measurements and material identification**

### **1. Symposium title**

Full-field deformation measurements and material identification

### **2. Organizers, including affiliations**

José Xavier (Universidade de Trás-os-Montes e Alto Douro, Vila Real, Portugal)

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### **4. Short description of the symposium including the scope and target public**

The International Symposium on “Full-field deformation measurements and material identification” will be held within the 19th International Colloquium on Mechanical Fatigue of Metals (ICMFM XIX). The conference will take place on the beautiful Porto city, Portugal, on 5-7 September 2018.

The Symposium aims at gathering recent developments and applications on full-field deformation techniques in the framework of material behaviour characterisation. The progress of computer science, automated image processing and digital cameras, propelled an entire novel photo-mechanical approach for experimental solid mechanics. Several full-field optical techniques have been proposed in the last decades, which can be classified as white-light, e.g., moiré, grid and digital image correlation methods, and interferometric, e.g., speckle and moiré interferometry, holography and laser shearography. Contrasting with pointwise techniques, these methods provide full-field data and are contact-free. Novel inverse identification methods

have then be proposed to extract material parameters governing relevant constitutive models. Furthermore, these region-based measurements are valuable data to validate computational numerical models. The Symposium targets contributions overlooking the state-of-the-art and future perspective of using full-field deformation measurements for the mechanical behaviour of materials.

Selected papers will be peer reviewed and published in several international scientific journals associated to the ICMFM XIX conference.

Please submit your work by email to [jmcx@utad.pt](mailto:jmcx@utad.pt) or [sirel@fe.up.pt](mailto:sirel@fe.up.pt) with subject **I-FDMI-ICMFM2018**.

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