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## Special Session CST2010-S23 Computational Models in Structural Health Monitoring

*organised by Y. Petryna,  
Technical University Berlin, Germany  
[petryna@statik.tu-berlin.de](mailto:petryna@statik.tu-berlin.de)*

Structural Health Monitoring (SHM) is a growing multidisciplinary research field with applications in aeronautical, marine, automotive, mechanical, civil and industrial engineering. The success of SHM is hardly possible without suitable computer models applied at all steps – from operational evaluation and data acquisition up to damage and lifetime prediction. Besides the progress of the sensor technology, computer models will be a key issue in the future SHM techniques.

This special session is dedicated to a wide spectrum of computer models developed for the process of structural health monitoring and related to:

- System and damage analysis, feasibility studies and SHM justification;
- Damage definition, detection, localization and identification;
- Feature selection and extraction, interpretation of measurements in context of SHM;
- Uncertainty modelling, error estimation and improvement;
- Damage evolution and lifetime models;
- Data acquisition, normalisation, cleansing, storage and recovery;
- Case studies and industrial applications of SHM.

The aim of the session is to bring together the scientists and specialists from various application fields of SHM in order to share experience, to find the state-of-the-art and to define challenges for computer modelling in the field.

The authors are invited to submit an abstract (up to 1.000 words):

- directly to the special session organiser by e-mail:  
[petryna@statik.tu-berlin.de](mailto:petryna@statik.tu-berlin.de)
- or directly to the conference secretariat using the electronic submission form  
<http://www.civil-comp.com/conf/abstract.htm>

Please refer to this special session CST2010-S23 when submitting your abstract.