

PREFACE

This volume constitutes the proceedings of the fifth in a series of biennial international conferences on Damage Assessment of Structures (DAMAS 2003). The aim of the conference is to bring together the expertise of scientists and engineers in academia and industry in the field of damage assessment, structural health monitoring (SHM) and non-destructive evaluation (NDE). The study of damage evolution, location and characterisation are important topics in the growing area of SHM and are a major theme of the conference. To efficiently analyse the data rich information provided by monitoring and NDE techniques it is necessary to use advanced signal processing procedures. A significant proportion of the conference is dedicated to signal processing and computation methods.

The DAMAS series of conferences is now established as a major forum for discussion and dissemination of recent advances in damage detection, assessment and quantification, following the four previous conferences in Pescara (1995), Sheffield (1997), Dublin (1999) and Cardiff (2001).

The proceedings covers activities relevant to damage assessment of engineering structures and systems including signal processing of sensor measurements and analytical techniques as well as experimental case studies. The conference themes are as follows: -

- Damage assessment
- Advanced methods of NDT
- Recent advances in signal processing and algorithms
- Structural integrity
- Damage mechanisms
- Fatigue damage
- Damage location and quantification
- Sensors and measurement strategies
- Intelligent materials
- Knowledge-based systems
- Condition monitoring
- Biomedical damage detection and analysis
- Case studies

The conference organising committee is very grateful to the authors for their careful efforts in producing the papers and to the Scientific Committee and the Keynote Speakers for taking the time to reviewing the papers to journal standards.

The conferences are self funding and any profit will be passed on to the organisers of the next conference. However, the organisers are grateful to the UK Structural Integrity and Damage Assessment Network (www.sidanet.org), the Institute of Physics Stress and Vibration Group and the British Society for Strain Measurement who kindly supported the advertising of this event.

J M Dulieu-Barton M J Brennan K M Holford K Worden

