



European Structural  
Integrity Society



University of Padua



University of Parma



University College London

## Conference Announcement and Call for Papers

### International Conference on Crack Paths (CP 2009)

Vicenza (60 Km from Venice), Italy

23 - 25 September, 2009

Website: <http://www.CP2009.unipr.it>



Palladian Basilica in Vicenza

## Foreword

Crack growth can take place under both static and fatigue loading. The complete solution of a crack growth problem includes the determination of the path taken by the crack. The crack path in a critical component or structure in aerospace, automotive, offshore and other industries can determine whether failure is benign or catastrophic. Knowledge of potential crack paths is also needed for the selection of appropriate non-destructive testing procedures. Agreement between theoretically predicted and experimentally determined crack paths is sometimes poor, and further information is needed on how to ensure that a crack path is benign.

The determination of crack paths is a matter of concern to engineers, industry experts and research scientists, from both a fundamental science standpoint and a technological one. The International Conference on Crack Paths will bring together both fatigue and fracture experts from Industries, Universities and so on, to exchange recent information and provide a discussion forum on how to promote research and development in this field early in the 21st Century.

This Conference follows the Conferences **FCP 2003** and **CP 2006**, held in Parma, Italy. Special issues of international journals have been devoted to work presented at those Conferences (Fatigue Fracture Engineering Materials Structures, Vol.28, No.1-2, 2005, and Engineering Fracture Mechanics, Vol.75, No.3-4, 2008).

A Special Issue of **Engineering Fracture Mechanics** containing extended versions of selected papers presented at **CP 2009** will be published after the Conference.

## Conference Chairmen

Bruno Atzori, Padua

Andrea Carpinteri, Parma

Paolo Lazzarin, Padua

Les P. Pook, London

## Main topics of the Conference

Members of different industries and scientists from all over the world are invited to contribute with presentations on any of the following topics (in the case of both static and fatigue loading):

Experimental Determination of CP  
Theoretical Prediction of CP  
Integrity Assessment Methods based on CP Evaluation  
Microscopic Aspects of CP  
CP of Surface Cracks  
CP of Short Cracks  
Effect of Large Scale Yielding on CP  
Effect of Material Inhomogeneities on CP  
Effect of Non-Proportional Cyclic Loading on CP  
Effect of Environmental Conditions on CP  
CP in Advanced Materials  
Laboratory Methods of Controlling CP  
In-Service Inspection of CP  
Application of CP Concepts and Data in Design  
Industrial application of CP Concepts and Data

## Conference venue

Vicenza is a cosy and pleasant medium sized city in the north of Italy. It is situated 60 Km from Venice, and has good air and rail links. It is an arts and science centre, which combines tradition with a modern approach. It has a strong cultural heritage. Here we have a branch of the University of Padua, which is very ancient since it was founded in 1222. Padua is the birthplace of the great architect Andrea Palladio (1508-1580), who worked in Vicenza, too. Vicenza is a wonderful tourist centre, with many monuments, churches and museums. In 1994 Unesco included Vicenza, with its historical centre and sixteen Palladian villas, in the humanity's World Heritage. An age-old tradition in goldsmithery makes Vicenza a world point reference in this field. Further, it has a famous gastronomic tradition, and its best known local products are wines (Prosecco, Cabernet, etc.) and grappa. The climate is fine, with a daytime temperature in September of about 20°C.

**Conference language: English**

## Submission of Abstracts

Experts in the fields mentioned are kindly requested to submit Abstracts (one A4 page maximum) with title, names of Authors, affiliation, mail and e-mail addresses, to :

Professor Andrea Carpinteri  
Dept of Civil Engineering  
University of Parma  
Viale G.P. Usberti, 181/A  
43100 Parma, ITALY  
Tel: +39 0521 905922  
Fax: +39 0521 905924  
E-mail: andrea.carpinteri@unipr.it

**by 30th November, 2008**

## Invited Lectures and Papers

Invited Keynote Lectures will provide critical assessments of the current understanding of various aspects of the crack path problem.

Organised Sessions will be devoted to the presentation and discussion of contributed papers. Some papers could be included in a Poster Session.

All accepted papers will be published in the Proceedings of the CP 2009 Conference.

### Sponsorship

Sponsorship is invited to support this event. Please contact Professor Paolo Lazzarin:

Tel. +39 0444 998780

Fax +39 0444 998888

E-mail: plazzarin@gest.unipd.it

### Accompanying Exhibition

Companies interested in presenting their products, processes and achievements relating to the subject and in offering personal consultancy will have the opportunity to do so in the exhibition which will be held parallel to the Conference. Please contact Professor Paolo Lazzarin.

## Deadlines

30 Nov. 2008 Abstracts

15 Jan. 2009 Abstract acceptance

15 Mar. 2009 Camera-ready manuscripts