

# FraMCoS-6 Post-Conference Workshop

## Acoustic Emission and Critical Phenomena: from Structural Mechanics to Geophysics

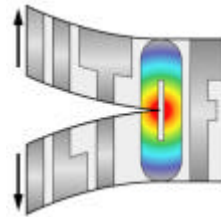
Sheraton Hotel Conference Centre  
Catania, ITALY  
June 22, 2007

- The aim of this workshop is to bring together researchers from mechanics of materials to geophysics to explore at world-wide level the applied (for non-destructive testing and failure evaluation) and theoretical (for critical phenomena in complex systems) implications of acoustic emission monitoring.
- The active researchers in this field are invited to attend the workshop and to prepare as soon as possible a short abstract concerning their contribution. All the contributions accepted will be published after the workshop as a high-quality set of proceedings.
- The Instructions for producing the final Camera Ready Manuscript and for filling the Consent to Publish Form are available on the web-site:  
[http://www.balkema.nl/zip/FraMCoS-6\\_workshop.ZIP](http://www.balkema.nl/zip/FraMCoS-6_workshop.ZIP)
- The deadline for submission of full-length papers is May 31, 2007; the maximum number of pages is 20. The paper, in one column page layout format, should be delivered in electronic form as well as in hard copy to the following address:

### Workshop Secretariat

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### ILTOF

Innovative Learning  
and Training On Fracture  
This project has been carried  
out with the support of the  
European Commission  
[www.iltof.org](http://www.iltof.org)

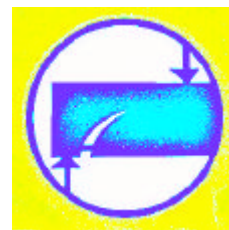


Education and Culture

**Leonardo da Vinci**



[www.polito.it](http://www.polito.it)



[www.framcos6.org](http://www.framcos6.org)



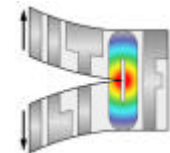
### FraMCoS-6

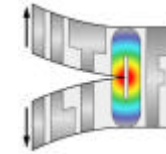
6th International Conference  
on Fracture Mechanics of Concrete  
and Concrete Structures



## Post-Conference Workshop on Acoustic Emission and Critical Phenomena: from Structural Mechanics to Geophysics

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Catania, ITALY – June 22, 2007





## SCIENTIFIC PROGRAMME

08.50 **Introduction**  
Alberto Carpinteri  
IA-FraMCoS President

### DAMAGE MONITORING AND STRUCTURAL ASSESSMENT

09.00 **Structural integrity evaluation by means of acoustic emission**  
K. Ono

09.30 **Localization and mode determination of fracture events by acoustic emission**  
H. W. Reinhardt, C.U. Grosse

10.00 **Acoustic emission analysis of concrete for corrosion, damage and cracking mechanism**  
M. Ohtsu, Y. Tomoda and K. Ohno

10.30 **Clustering analysis and source characterization of acoustic emission**  
J.F. Labuz, F.C.S. Carvalho and S. Cattaneo

11.00 **Coffee Break**

### EARTHQUAKE MECHANICS AND SEISMIC ASSESSMENT

11.30 **Accelerating moment release before large earthquakes**  
C. G. Sammis

12.00 **Scaling in the temporal occurrence of earthquake and relations with fracture phenomena**  
A. Corral

12.30 **Lunch Time**

14.30 **Multidimensional approaches to study Italian seismicity**  
A. Carpinteri, G. Lacidogna and G. Niccolini

### DAMAGE MONITORING AND STRUCTURAL ASSESSMENT

15.00 **Contributions of AE monitoring for new era of sustainable civil structures**  
T. Shiotani

15.30 **Acoustic emission monitoring of a concrete hinge joint bridge structure**  
R. Pullin, K. M. Holford, R. J. Lark and J. Hensman

16.00 **Coffee Break**

16.30 **Acoustic emission analysis during test loading of existing structures**  
G. Kappahn and V. Slowik

17.00 **Monitoring the steel-concrete interaction using acoustic emission techniques**  
H. W. Reinhardt, C. U. Grosse

17.30 **Introduction to the ILTOF project: Implemented activities and expected results**  
A. Carpinteri  
ILTOF Coordinator

### CONCLUSIONS AND DISCUSSION