



# FIRE SPALLING



## Organization Committee

Dr. P. Pimienta – CSTB – France (Chair)  
 Prof. F. Meftah – INSA Rennes – France (Co-chair)  
 Prof. S. Dal Pont – UJF Grenoble – France  
 Dr. G. Debicki – INSA Lyon – France  
 Dr. A. Millard – CEA – France  
 Dr. J.C. Mindeguia – Université Bordeaux – France  
 Dr. F. Robert – CERIB – France

## Advisory Committee

Prof. F. Dehn – MFPF Institute, Leipzig, Germany  
 Prof. U. Diederichs – Rostock Universität, Germany  
 Prof. R. Felicetti – Politecnico di Milano, Italy  
 Mr. N. P. Höj – Brunnen, Switzerland  
 Mr. R. Jansson – SP, Borås, Sweden  
 Dr. E. Koenders – TU Delft, Netherlands  
 Mr. T. Lennon – BRE, Garston, UK  
 Dr. L. Phan – NIST, Gaithersburg, USA

## Scientific Committee

The scientific committee consists of the members of the RILEM TC 227-HPB - Physical Properties and Behaviour of High Performance Concrete at High Temperature (Chairman: Dr. P. Pimienta) and the members of the fib TG 4.3 - Fire Design of Concrete Structures (Convenor: N. P. Höj).

## Conference Secretary

CSTB  
 Secrétariat WorkShop 2013 - Bât B18  
 84 avenue Jean Jaurès - Champs-sur-Marne  
 77447 Marne-la-Vallée Cedex 2 - France  
 Tel: +33 1 64 68 83 33 - Fax: (+33) 1 64 68 83 33  
 E-mail: firespalling2013@cstb.fr

## Submission of abstracts

Guidelines and procedure for preparing and submitting extended abstracts are detailed on the workshop website: [www.FireSpalling2013.fr](http://www.FireSpalling2013.fr)

## Important Dates

November 30, 2012: Abstract submission deadline  
 January 31, 2013: Notification of acceptance of abstracts  
 March 31, 2013: Full paper submission deadline  
 May 31, 2013: Notification of acceptance  
 June 30, 2013: Deadline for early registration

## Registration - Fees

Those intending to attend the workshop are kindly requested to register via the workshop website.

- Regular participants - Early registration € 480
- Regular participants € 600
- Students (MSc, PhD) - Early registration € 380
- Students (MSc, PhD) € 480
- Accompanying persons € 150

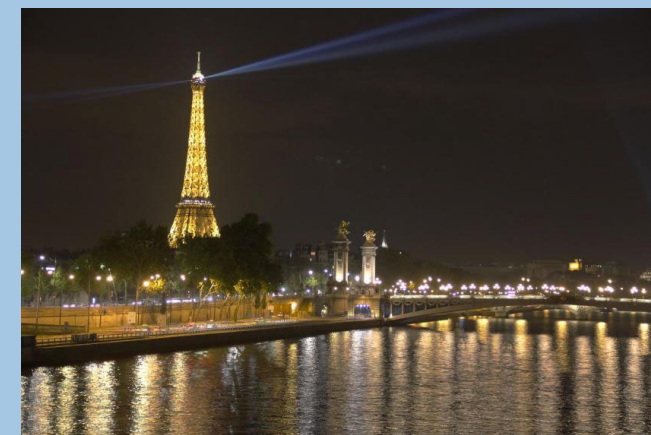
The registration fee covers the workshop proceedings, participation to all scientific sessions, lunches, coffee breaks and the workshop banquet.

## CALL FOR ABSTRACTS RILEM WORKSHOP

# 2013

# FIRE SPALLING

3rd International Workshop on  
Concrete Spalling due to  
Fire Exposure



Paris - France  
 25 - 27 September 2013

[www.FireSpalling2013.fr](http://www.FireSpalling2013.fr)

Organized by



Supported by



# FIRE SPALLING

## Call for abstracts

3rd Int. Workshop: International Workshop on Concrete Spalling due to Fire Exposure.

After the two first successful workshops in Leipzig in 2009 and Delft in 2011, this is the announcement for the 3rd International Workshop on Concrete Spalling due to Fire Exposure which will be held in Paris from the 25th to the 27th September 2013.

The workshop will be a forum for presenting and exchanging experiences and developments in the field of spalling of concrete due to fire exposure. The workshop will be co-organized by CSTB and INSA Rennes and supported by RILEM and fib.

## Scope of the workshop

Controlling the sensitivity of concrete to its spalling behavior during fire exposure is one of today's major issues in the design and construction of concrete structures. Fires - such as the Channel tunnel fire - have demonstrated that spalling of concrete can have serious structural and economical consequences and is a phenomenon that should be taken into account when designing for fire.

Developments in concrete mix design have led to new types of concrete - such as high strength, ultra-high strength and self-compacting concrete - which, besides an increased structural performance, have also shown a different sensitivity to spalling due to fire exposure. However, until now the sensitivity to spalling of concrete as a structural material is not fully understood.

More research is needed to understand the mechanisms governing spalling of concrete in order to be able to quantify the risk and consequence of spalling in a given situation.

This third workshop will focus on spalling of concrete due to fire exposure with emphasis on performance from the material to the structure. Real life experiences and observations, practical applications, developments in experimental testing, numerical modeling and design recommendations will be addressed. The workshop aims to obtain the current state of the art, to exchange results and to stimulate discussion between researchers and representatives from the industry.

The main topics that are selected for the workshop are based on recent achievements and advancements in theoretical and experimental research together with progress made in the field of fire design of concrete structures. Therefore, contributions will address the understanding of underlying processes, key properties and global behaviour of spalling under various conditions. Of special interest are those topics related to recent advances in numerical modeling in combination with experimental testing at the materials and structures level.

Finally, the workshop will be a forum for academia, industry, companies, consultants and governmental organizations to discuss research questions and practical applications related to spalling of concrete. Representatives will be invited to report on special topics (real life experience, practical

application, national versus international codes and regulations, etc.) in order to share and discuss their experiences.

## Topics

- Experimental investigation of spalling mechanisms
- Innovative experimental techniques
- Quantification of gas and liquid pore pressures
- Spalling assessment for large scale structures
- Ageing effects on spalling
- Refractory concrete and spalling behavior
- Fire performance of low environmental impact concrete
- Toward standardizations of experimental testing for evaluation of spalling risk
- Heat and mass transfer mechanisms
- Advanced modeling for spalling risk assessment
- Engineering modeling of spalling and practical applications
- Measures to reduce or prevent spalling: Structural design & Innovative materials
- Repair and rehabilitation techniques of spalling damaged concrete structures
- Technical and economical feedback and recommendations from fire safety practice: Design offices, Fire brigades, Authorities.
- (Inter)national safety regulations with regard to fire spalling issues
- Report from activities of technical committees: Rilem, fib...

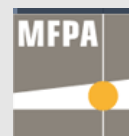
## Post Event

Visit of the modular large size furnace VULCAIN in CSTB (9 m x 3 m)

[www.FireSpalling2013.fr](http://www.FireSpalling2013.fr)



Previous organizers



[www.FireSpalling2013.fr](http://www.FireSpalling2013.fr)