



Second Announcement and Call For Papers

International Conference

Numerical Modeling Strategies for Sustainable Concrete Structures

Website : www.sscs2012.com

May 29 - June 1, 2012

Aix-en-Provence, France



Chairmen: Pierre Rossi and Jean-Louis Tailhan

Institut Français des Sciences et Technologies des Transports,
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Paris, France

Supporting organisations



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Cement is the more used building material constituent, and will continue to be largely used in the years to come. Its production generates CO₂ emissions.

It is, thus, of primary importance to optimize the use of this cement in the concrete structures, while checking that these structures have lifespan compatible with the stakes of the **sustainable development**. To take up this challenge, it is essential to use **adapted tools of quantification** making it possible to justify, in a rigorous and reliable way, the strategic and technical choices adopted.

The **numerical methods** (finite elements, finite volumes, finite differences ...) constitute a relevant response to this challenge. They potentially allow, due to a best taken into account of the rheological, physico-chemical, and mechanical concrete properties, and of thermo-hydro-mechanics and environmental boundary conditions on the structures, to optimize these structures (optimization with respect to time, money, safety, energy, CO₂ emissions, and, more generally, life cycle), in a way more reliable than the codes and analytical approaches currently used.

The control of the concretes placing in the formworks, their durability, their cracking, their shrinkages, and their creeps, with respect to the sustainable development (evaluation of CO₂ emissions, for example) constitute, therefore, the principal topics of this international conference.

The objective is to join together researchers, engineers, architects, urbanists, industrials and owners, to exchange and reflect on the use of these numerical tools and their contribution with respect to the current stakes of sustainable development.

Conference Topics

I. Theoretical and Numerical Models

- I.1. Flowing and Casting
- I.2. Early age behaviours
- I.3. Drying, Shrinkages and Creeps
- I.4. Cracking behaviours (static, fatigue, dynamic)
- I.5. Chemical aging (chemical reactions and transfers)
- I.6. Coupling Problems

II. Structural applications and Sustainability

- II.1. Bridges
- II.2. Buildings
- II.3. Nuclear structures and storages
- II.4. Tunnels
- II.5. Roads and Railways
- II.6. Others applications



Scientific Committee

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Presentation of Aix-en-Provence

Historical Capital of Provence, Aix-en-Provence symbolizes the Provençal lifestyle and enjoys an advantageous geographical location in the heart of south-eastern France with easy access by air, rail and highway.

Town of water, town of art... Aix was built and has developed around this dual identity. But the town also knows how to blend different eras and culture.

Open to the world, it is a city of human dimension where the preserved heritage and the city of tomorrow blend perfectly. Here, all is colour and sensation: the light of the sky, the golden stone of the facades, the transparent green of the fountains, the shade of the plane trees at the famous "Cours Mirabeau"... The city of King René has retained a human dimension where everything is within walking distance from downtown.

The youth of its student population, its wealth of business and the beauty of its historic pedestrian center, offers a framework and relaxation very appreciated by delegates. The hotels and restaurants in the old Aix are close to the conference center located in the heart of the city.

As it has inspired great artists in the image of Paul Cezanne, Aix-en-Provence will inspire your conference.

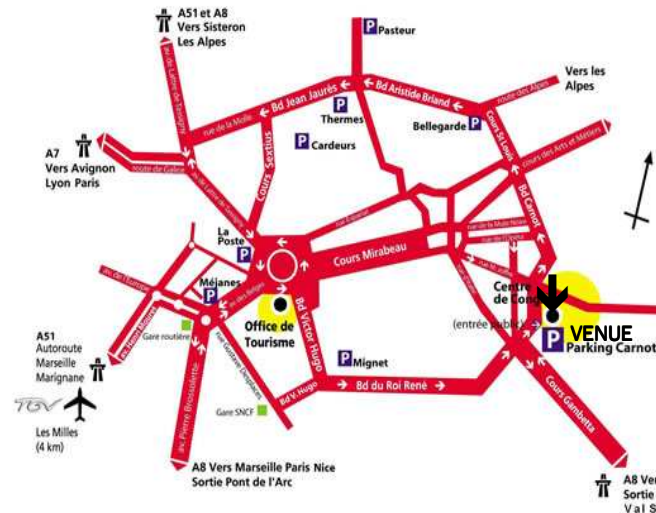


Venue

Centre des Congrès / Congress Center

Location: 14 boulevard Carnot

F-13100 AIX-EN-PROVENCE - FRANCE



Access:

By plane:
 Marseille-Provence International Airport (25 km)
 By TGV:
 Aix TGV station: RD9 - Bus link to Aix (15 km)

Scientific Exhibition

A Scientific Exhibition will be held in the Congress Center. This is an opportunity for companies to present their works. Costs of booking are available on the website.

Technical Visit and Banquet

The Technical Visit will take place at the « Baux-de-Provence » on June 1st, 2012 afternoon. A banquet in a famous castle will follow the visit.

Accommodation

A large list of hotels is available on the website of the Tourism Office of Aix on: www.aixenprovencetourism.com

Reservation Center:

Tel. +33(0) 4 42 16 11 84 or 85

mailto:resaix@aixenprovencetourism.com

You must make your own reservation. You can benefit of a special discount if you specify that you attend the conference at the Congress Center.

Registration Fees

Conference registration fees include: admission to all scientific programs, proceedings (CD-Rom), opening reception, coffee breaks, lunches, technical visit and conference banquet.

Fees (all taxes included)	Before February, 29 2012*	After February, 29 2012
Registration Fee	600 Euros	700 Euros
AFGC members	550 Euros	650 Euros
Students	400 Euros	450 Euros
Accompanying Persons Program	150 Euros (Reception, Banquet, Technical visit)	

* At least one author of an accepted paper has to be registered before February 29, 2012 to include the paper in the proceedings.

Key Dates and Deadlines

Submission of abstracts (maximum 500 words) via Website : www.sscs2012.com	June 30, 2011
Preliminary acceptance to authors	July 31, 2011
Submission of full-length papers (maximum 10 pages) via Website : www.sscs2012.com	October 15, 2011
Notification of final acceptance	December 15, 2011
Final Announcement	January 15, 2012
Advanced registration	February 29, 2012
Conference at Aix-en-Provence, France	May 29 - June 1, 2012

Conference Secretariat

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