



2<sup>ND</sup> INTERNATIONAL CONFERENCE

# SUPER-HIGH STRENGTH STEELS

*organised by*



**Associazione  
Italiana  
di Metallurgia**

*Sponsored by*



**Tenaris**Dalmine

**1<sup>st</sup> announcement • call for papers**

**17-20 OCTOBER 2010**

Peschiera del Garda (Verona), Italy

[www.aimnet.it/shss2010.htm](http://www.aimnet.it/shss2010.htm)



## SCOPE OF THE CONFERENCE

**Steel** is a material with a major strategic importance, vital to many industrial sectors such as transport, construction, oil & gas, and energy production industries. Both the design and production of components and of load bearing structures made of steel are constantly seeking the possibility of increasing the level of strength so as to reduce weight and dimensions in a significant way. The advantages of such an action are however to be seen not only from a pure economic point of view, but, in many sectors, also within a much more important socio-environmental context.

In addition to strength properties, the new steels under development should offer ease of forming, of welding and other fabrication procedures. Severe working conditions often require either good toughness at low temperatures an-

anticipated in service or other improved performances such as low susceptibility to hydrogen embrittlement, and resistance to high temperature.

For Material Scientists and Engineers it is a hard task to obtain a satisfactorily good combination of properties that makes the use of high strength steel materials in a selected context possible or even attractive. But the importance of the overall objective largely justifies the big efforts paid by the international Community through the years.

After the previous successful 1st International Conference on "Super-High Strength Steels", 2-4 November 2005, in Rome, organised by AIM (Associazione Italiana di Metallurgia) and CSM (Centro Sviluppo Materiali) and the Conference on "New Developments on Metallurgy and Applications of High Strength Steels", 26-28 May 2008, Buenos Aires, Ar-



gentina, organised by Ternium, Tenaris and Asociación Argentina de Materiales (co-sponsors AIM, TMS and ABM), AIM invites delegates to attend the 2nd International Conference on "Super-High Strength Steels", in Peschiera del Garda, Italy on October 17-20, 2010.

The Conference will be a suitable meeting place for those involved in research, development and application of advanced steels. The congregation of these groups has proven to be a fruitful seed for the successful development of innovative processes, of new grades for a wide range of carbon and alloyed steels options and of new applications for improved performances high strength steels.

With this conference the organisers intend to achieve the continuation of the path towards a cooperation on a permanent basis between Industry and Academia on the topic

of high strength steels. This International Conference will provide a technical forum for the dissemination of recent advances in the field of high strength steels. Academics, research centres, operators in leading market sectors such as Automotive, Mechanics, Oil & Gas and Energy production and transmission, Constructions, are addressed to report on the latest progresses made in the field of formability, weldability, corrosion, fatigue & fracture resistance, creep resistance, just to quote some of the main properties to be developed in association with the required High or Super High Strength levels.

Metallurgists and Technologists will be asked to contribute also on the fabrication cycles set-up and control themes as well as the identification and description of the relevant property - controlling mechanisms.

# TOPIC GUIDELINES

The conference will cover both fundamental and applied aspects of high strength steels, in the following topics:

## Materials

Plain Carbon, micro-alloyed, low-alloy & high-alloy steels  
Hot and cold sheets  
TMCP and heat treated plates  
Seamless and welded pipes  
High ductility wires & rods

## Fabrication, Properties & Mechanisms

Compact cycles  
Thermo-mechanical treatment  
Off-line & in-line heat treatments  
Welding technology & defect tolerance  
Fatigue & Fracture: mechanics & mechanisms  
Stress Corrosion & H-embrittlement  
Surface protection

## Applications

Engineering design tools  
Mechanics  
Power generation  
High-pressure high-temperature pipelines  
Oil wells  
Car body  
Constructions & large infrastructures

## Scientific and Steering Committee

**G. Abbruzzese** - Centro Sviluppo Materiali, Italy  
**F. Actis** - Ternium, Argentina  
**H. Bhadeshia** - University of Cambridge, United Kingdom  
**W. Bleck** - Institut für Eisenhüttenkunde RWTH Aachen, Germany  
**M. Boniardi** - Politecnico di Milano, Italy  
**A.J. DeArdo** - University of Pittsburgh, USA and University of Oulu, Finland

**D.V. Edmonds** - University of Leeds, United Kingdom  
**C. García de Andres** - CENIM, Spain  
**H. Godinot** - Total, France  
**J.C. Gonzalez** - TenarisSiderca, Argentina  
**P.D. Hodgson** - Deakin University, Australia  
**A.A. Howe** - Swinden Technology Centre, United Kingdom  
**K.B. Kang** - Posco, South Korea  
**G. Lannoo** - Centre for Research in Metallurgy, Belgium  
**D. Matlock** - Colorado School of Mines, USA  
**M. Militzer** - University of British Columbia, Canada  
**K. Nagai** - National Institute for Materials Science, Japan  
**W. Nicodemi** - Politecnico di Milano, Italy  
**T. Perez** - Tenaris, Argentina  
**B-E. Pers** - SSAB Tunnplat, Sweden  
**R. Roberti** - Università di Brescia, Italy



**J.M. Rodríguez Ibabe** - The Centro de Estudios e Investigaciones Técnicas de Gipuzkoa (CEIT), Spain  
**C.M. Sonsino** - LBF, Germany  
**Y. Wang** - Chinese Academy of Science, P.R. China

### Local Organizing Committee

**E. Anelli** - TenarisDalmine, Italy  
**F. Bassani** - AIM, Italy  
**G. Cumino** - TenarisDalmine, Italy  
**G. Mannucci** - Centro Sviluppo Materiali, Italy  
**C. Mapelli** - Politecnico di Milano, Italy  
**P. Ravanelli** - TenarisDalmine, Italy

### Previous Conference

1st SHSS 2005: Rome (Italy)

### Call for Papers

Prospective authors wishing to present papers are

invited to submit a tentative title and an abstract of about 400 words (in English) to the Organising Secretariat. The abstract should provide sufficient information for a fair assessment.

### Deadlines

Titles and abstracts	<b>15 February 2010</b>
Notification of acceptance	<b>15 March 2010</b>
Final manuscripts	<b>28 May 2010</b>

### There are three ways to submit papers:

- to fill in the reply form on this circular and return it to the Organising Secretariat;
- to fill in the on-line form on the conference website at <http://www.aimnet.it/shss2010.htm>;
- to send the requested information by e-mail to [aim@aimnet.it](mailto:aim@aimnet.it).

### Language

The official language of the conference will be English.

### Proceedings


The full texts of the accepted papers will be published in the CD-Rom proceedings and issued to attendees on arrival at the conference.

### Sponsorship

Different types of sponsorship options will be available for the Conference. For information please refer to the Conference Secretariat.

### Conference Venue

The Conference will be held at the Parc Hotel (Via Brolo, 2/a - 37014 Castelnuovo del Garda), close to Peschiera del Garda. **Peschiera del Garda** is one of most characteristic towns of lake Garda: it stands on



the low shore of the lake where waters flow into the outflowing stream called Mincio and it is completely surrounded by canals. The historic centre of Peschiera is delimited by walls which modified the natural routes of the river. The first settlements were during the Bronze Age (typical finds were located: arrow points, swords). During the Roman period, Peschiera became an important centre. From the port of Peschiera it is easy to reach the other towns of Lake Garda by boat. There is a 40 km long cycling lane starting from Peschiera del Garda which connects the Lake to Mantova and that coasts the river most of the time, in a nature where the Mincio Park extends itself, where Peschiera does not border.

Peschiera is conveniently located, only 25 kilometres far from Verona.

**Castelnuovo del Garda** is located on the south-eastern morainic hills of Lake Garda and is rich

of historical remains, from the crenel-lated tower memory of the ancient castle, to Villa Sella dating back to the XV century and to the Parish Church (1793-1830), where an altarpiece of F. Brusasorci is to be found. Its hamlets as well offer some historical views. In Cavalcaselle there is the ancient nobiliary Villa Arvedi D'Emilei (XVII and XVIII centuries) and a Parish Church with frescoes dating back to the XVIII century; in Sandrà there is the neoclassical Villa Il Soletto and the Church of Sant'Andrea. The town, at the core of the production area of very fine wines, is placed on a territory rich in theme and fun parks and among them the most famous of Italy: Gardaland.

At Castelnuovo del Garda, there is tourist accommodation available in hotels, agriturismos, residence self-catering accommodation, b&b, rooms for rent and camp sites.

## How to reach the conference venue

### by plane

"Valerio Catullo" airport in Villafranca di Verona;  
"Gabriele D'Annunzio" airport in Montichiari (Brescia);  
"Orio al Serio" airport in Orio Al Serio (Bergamo);  
"Linate" airport in Milano.

### by car

A4 toll road Milan-Venice (exit Peschiera del Garda);  
Route 249 "Gardesana Orientale";  
Route 11 "Padana Superiore";  
Provincial highway to Mantua.

### by train

Milan-Venice railway: Peschiera train station.

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REPLY FORM (photocopies can be used)

Family name ..... First name .....

Affiliation .....

Mailing address .....

Zip code ..... Town ..... Country .....

Tel. .... Fax. .... E-mail. ....

I wish to receive all subsequent circulars

I wish to receive information on Conference sponsorship opportunities

I plan to submit a paper

Authors: .....

Title: .....

Abstract: a 400 words abstract, must be included.

Date ..... Signature .....



# SUPER-HIGH STRENGTH STEELS



*Conference Organising Secretariat*

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