



2ND INTERNATIONAL CONFERENCE

SUPER-HIGH STRENGTH STEELS

FINAL PROGRAMME

17-20 OCTOBER 2010

Peschiera del Garda (Verona), Italy

www.aimnet.it/shss2010.htm

Organised by



**ASSOCIAZIONE
ITALIANA
DI METALLURGIA**

In collaboration with

 **Tenaris**Dalmine



SUPER-HIGH STRENGTH STEELS

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 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, Argentina, 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.



SUPER-HIGH STRENGTH STEELS



PREVIOUS CONFERENCE

1st SHSS 2005: Rome (Italy)

CONFERENCE CHAIRMEN

A.J. DeArdo - *University of Pittsburgh, USA and University of Oulu, Finland*

M. Pontremoli - *Centro Sviluppo Materiali, Roma, Italy*

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*

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D.V. Edmonds - *University of Leeds, United Kingdom*

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P.D. Hodgson - *Deakin University, Australia*

A.A. Howe - *Swinden Technology Centre, United Kingdom*

K.B. Kang - *Posco, South Korea*

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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*

SUNDAY 17 OCTOBER 2010

17.00 - 18.30 Registration

19.00 Aperitivo di benvenuto

MONDAY 18 OCTOBER 2010 - MICHELANGELO ROOM

PLENARY SESSION

Chairpersons: E. Anelli, G. Cumino

9.00 Welcome addresses by:

Vincenzo Crapanzano, AIM President
Conference Chairmen

9.10 **Research and development of high strength steels with excellent fatigue failure resistance**

W. Hui, H. Dong - *Central Iron and Steel Research Institute (CISRI), Beijing, China*
X. Zhao - *Nanjing Institute of Technology, China*
Y. Weng - *CISRI, Beijing, China and The Chinese Society for Metals, Beijing, China*

9.40 **Structure-property relationship in thermomechanically processed high strength steels containing bainite**

P.D. Hodgson, H. Beladi, I.B. Timokhina - *Deakin University, Geelong, Australia*
X.Y. Xiong - *Monash University, Australia*

10.10 **Development of new pearlitic steels for high performance rail applications**

R. Ordonez, C. Isaac Garcia - *University of Pittsburgh, USA*
S. Kalay - *Transportation Technology Corporation, Pueblo, USA*
A.J. DeArdo - *University of Pittsburgh, USA and Oulu University, Finland*

10.40 **Super high-strength steels: what went wrong?**

A.A. Howe, P. Morris - *Corus RD&T, Rotherham, United Kingdom*

11.10 **Hot workability of steels: strength and ductility in processing and product**

H.J. McQueen - *Concordia University, Montreal, Canada*
E. Evangelista - *Polytechnical University, Ancona, Italy*

11.40 Coffee break

AUTOMOTIVE

Chairpersons: G. Abbruzzese, W. Bleck

12.00 Keynote

Ultra-fine grained manganese trip steel

B.C. De Cooman, S. Lee, S. Santhosh Kumar - *POSTECH, Pohang, South Korea*

12.30 Improvement of formability and performance of coated ultra-high-strength steels by local heat treatment using a high power diode laser

G. Bergweiler, A. Weisheit, K. Wissenbach - *Fraunhofer Institut Lasertechnik, Aachen, Germany*

C. Kopp - *AUDI AG, Ingolstadt, Germany*

I. Kelbassa - *Lehrstuhl für Lasertechnik LLT*

12.50 Development of advanced high strength steels and advanced super-high strength steels at Nucor Corporation

W. Sun - *Nucor Corporation, USA*

13.10 Welcome buffet

AUTOMOTIVE

Chairpersons: G. Abbruzzese, W. Bleck

14.10 Microstructures and properties of microalloyed, hot rolled bainitic strip

M. Krieger, S. Preißler, M. Masimov, U. Eggers - *Salzgitter Mannesmann Forschung GmbH, Germany*

C. Pelz, P. Wüllner - *Salzgitter Flachstahl GmbH, Germany*

14.30 Inflateable side impact beams in martensitic steel

S. Fält - *SSAB, France*

J-E. Hedin, J. Larsson, P. Alm - *SSAB Tunnpå AB, Sweden*

N. De Oliveira - *Autoliv, France*

B. Carlsson - *SSAB, Germany*

14.50 Multi-axial fracture of advanced high strength steels

K. Kofiani, E. Koutsolelos, T. Wierzbicki - *MIT, Cambridge, USA*

T. Coppola, G. Mannucci - *Centro Sviluppo Materiali, Roma, Italy*

15.10 Effect of working condition on burring in high strength trip steel sheets

A. Nagasaka, S. Hasebe, A. Nakamura, T. Matusima - *Nagano National College of Technology, Japan*

K-i. Sugimoto - *Shinshu University, Japan*

T. Murakami - *Kobe steel Ltd., Japan*

15.30 The effect of braze-welding speed on the microstructure and mechanical properties of dual phase steel

I. Rampin, M. Piazza, S. Baldo, A.F. Miranda Perez, K. Brunelli, I. Calliari - *Università di Padova, Italy*

F.A. Reyes Valdès - *Corporación Mexicana de Investigación en Materiales, Saltillo, México*

15.50 Investigation on local mechanical properties in multiphase steels for designing local properties of constructional elements

M. Asadi, H. Palkowski - *Clausthal University of Technology, Clausthal-Zellerfeld, Germany*

16.10 Coffee break

HIGH TEMPERATURE MATERIALS

Chairpersons: G. Abbruzzese, G. Cumino

16.30 Optimisation of hafnium-containing and ODS ferritic steels for high creep strength boiler tube applications

Y. Yin, S.F. Di Martino, R.G. Faulkner, Z. Lu, N. Riddle, R.J. Grice - *Loughborough University, United Kingdom*

16.50 Welded joints on superheater collectors made from new generation 9-12%Cr martensitic creep-resisting steels. Properties, experience, application

J. Dobrzanski, A. Zielinski A. - *Institute for Ferrous Metallurgy, Gliwice, Poland*

J. Pasternak - *Boiler Engineering Company RAFAKO SA, Raciborz, Poland*

17.10 Understanding of 9-12% Cr steels on a nano- and subnano-scale. The secret of TAF

H-O. Andrén, F. Liu - *Chalmers University of Technology, Gothenburg, Sweden*

THERMO-MECHANICAL PROCESSING

Chairpersons: M. Militzer, A.J. DeArdo

12.00 Keynote

Application of thermomechanical processes to eutectoid vanadium microalloyed steels

J.M. Rodriguez-Ibabe, B. Lopez - *University of Navarra, San Sebastian, Spain*

12.30 The effect of thermomechanical processing on the transformation behavior of a Nb-bearing HSLA steel

C.I. Garcia, G. Facco, A.J. DeArdo - *University of Pittsburgh, USA*

R.G. Bruna, S. Alzari, F. Actis - *Ternium, San Nicolas, Argentina*

12.50 ARVEDI ESP - Real Endless Strip Production: the next generation of producing high-value steels started up

A. Guindani, R. Venturini - *Acciaieria Arvedi, Cremona, Italy*

A. Jungbauer, B. Linzer - *Siemens VAI, Linz, Austria*

S. Gelder, S. Bragin, C. Bernhard - *Leoben University, Leoben, Austria*

13.10 Welcome buffet

THERMO-MECHANICAL PROCESSING

Chairpersons: M. Militzer, A.J. DeArdo

- 14.10 Effect of cooling rate on the room temperature microstructure following the intercritical deformation of steel S460**
J.S. Hinton, E.J. Palmiere, W.M. Rainforth - *IMMPETUS The University of Sheffield, United Kingdom*
- 14.30 Deformation behaviour of a twinning induced plasticity (TWIP) steel**
J. Calvo, J.M. Cabrera - *CTM Centre Tecnològic and Universitat Politècnica de Catalunya, Spain*
R. Pineda, A. Delor - *Universitat Politècnica de Catalunya, Spain*
I. Mejía, A. Bedolla-Jacuinde - *Universidad Michoacana de San Nicolás de Hidalgo, México*
- 14.50 Microstructures and mechanical properties of thermo-mechanically processed low temperature bainite with 0.4 WT%-C in steel**
H. Mostafa, M. Soliman, H. Palkowski - *Clausthal University of Technology, Germany*
- 15.10 Influence of processing route and composition on the strength and impact behaviour of grade "110" high strength steel**
E. Maina, J.R. Banerjee, B. Mintz - *City University, London, United Kingdom*
- 15.30 Simulation of thermo-mechanical controlled rolling and continuous cooling of wire rods**
A. Alcamo, E. Chimisso - *Lucchini, Piombino, Italy*
F. Crobù, P. Folgarait, C. Guarnaschelli, S. Matera - *Centro Sviluppo Materiali, Roma, Italy*
- 15.50 Effect of process parameters on evolution of ultrafine ferrite grains**
A. Smith, I. Salvatori - *Centro Sviluppo Materiali, Roma, Italy*
S. Barcherini - *Danieli & C. Officine Meccaniche, Buttrio, Italy*
- 16.10** Coffee break

THERMO-MECHANICAL PROCESSING

Chairpersons: J.M. Rodriguez-Ibabe, C. Mapelli

- 16.30 Performances and microstructures of warm rolled HSLA steels**
C. Mapelli, A. Mazzocchi, D. Mombelli, M. Bertolasi - *Politecnico di Milano, Italy*
- 16.50 The effect of initial microstructure on microstructural evolution of warm caliber rolled medium carbon steels**
T. Lee, C.S. Lee - *POSTECH, Pohang, Korea*
Y.-H. Lee, S.-Y. Lee, D.-L. Lee - *POSCO, Pohang, Korea*
- 17.10 High strength steel through mechanical alloying and advanced vacuum heat treatments**
L. Girardini - *K4Sint, Pergine Valsugana, Italy*
I. Lonardelli - *Università di Trento, Italy*
- 17.30 Microstructural features of thermomechanically processed C-Mn-Si-Al-Nb-Ti multiphase steel**
A. Grajcar - *Silesian University of Technology, Gliwice, Poland*

PIPELINE

Chairpersons: G. Mannucci, C. Kalwa

9.00 Keynote

High strength steel linepipes for oil&gas market

G. Mannucci, G. Porcu - *Centro Sviluppo Materiali, Roma, Italy*

9.30 The alloy design and thermomechanically controlled processing (TMCP) of plate for high pressure, large diameter pipelines

C. Issac Garcia, M. Hua, A.J. DeArdo - *University of Pittsburgh, USA*

P. Suikkanen, P. Karjalainen - *University of Oulu, Finland*

9.50 Improvement of mechanical properties of heavy plates for high strength linepipe application i.e. in arctic regions

F. Grimpe, H. Meuser, E. Muthmann, F. Gerdemann - *Salzgitter Mannesmann*

Grobblech GmbH, Mülheim an der Ruhr, Germany

10.10 Low carbon boron steels for high strength line pipes

G. Gomez, R. Mazzina, T. Pérez - *TenarisSiderca R&D, Argentina*

10.30 Development of X120 pipeline steel at WISCO

B. Guo, J. Xu, L. Zheng - *Wuhan Iron and Steel Company, P.R. China*

10.50 Coffee break

11.10 Keynote

Investigations on the applicability of crack arrest predictions for high strength linepipe at low temperatures

M. Erdelen-Peppler, G. Knauf - *Salzgitter Mannesmann Forschung, Duisburg, Germany*

H.-G. Hillenbrand, C. Kalwa, A. Liessem - *Europipe, Mülheim an der Ruhr, Germany*

11.40 Substructure and texture-related anisotropy of mechanical properties of high-strength bainitic X80 steel for spiral-welded pipe

M. Masimov, S. Bremer - *Salzgitter Mannesmann Forschung GmbH, Germany*

B. Ouaisa - *Salzgitter Mannesmann Grossrohr GmbH, Germany*

12.00 The influence of varying high frequency induction bending and post bending heat treatment parameters on the microstructure API 5L X80 steel

R.A. Silva, I. de S. Bott - *Pontifical Catholic University, Rio de Janeiro, Brazil*

L. Naschpitz - *Protubo, Rio de Janeiro, Brazil*

G. Zacca Batista - *Petrobrás, Rio de Janeiro, Brazil*

12.20 New high strength steel for risers and flowline applications

M. Armengol, E. Anelli - *TenarisDalmine, Dalmine, Italy*

H. Quintanilla - *TenarisTamsa, Veracruz, Mexico*

A. Izquierdo - *TenarisAlgoma, Sault Ste. Marie, Ontario, Canada*

G. Mannucci, A. Fonzo - *Centro Sviluppo Materiali, Roma, Italy*

12.40 Microstructure and properties of X80 line pipes for arctic environment

I.Yu. Pyshmintsev, A.M. Gervasyev, A.N. Boryakova, A.O. Struin - *OAO RosNITI, Chelyabinsk, Russia*

A.B. Arabey - *OAO GAZPROM, Moscow, Russia*

13.00 Lunch

CORROSION & H-EMBRITTELEMENT

Chairpersons: T. Perez, R.G. Faulkner

14.00 Hydrogen embrittlement of advanced high strength steel for automotive use

G. Lovicu, M. Barloscio, M. De Sanctis, A. Dimatteo, C. Santus, R. Valentini -

Università di Pisa, Italy

M. Bottazzi, F. D'Aiuto, C. Federici, S. Maggi - *Fiat Auto, Torino, Italy*

14.20 A new spring steel with improved ductility and corrosion resistance dedicated for high strength coil springs

F. Perrard - *Ascometal CREAS, Hagondange, France*

F. Carpentier, P. Meaux - *Allevard Rejna Autosuspensions, Douai, France*

J. Languillaume - *Ascometal Usine D'Allevard, Le Cheylas, France*

14.40 Effect of carbide morphology on the hydrogen delayed fracture resistance

Y-H. Lee, D.H. Kim, J.S. Kim - *POSCO, Pohang, Korea*

C.S. Lee - *Pohang University of Science and Technology, Pohang, Korea*

15.00 Evaluation of corrosion resistance and mechanical properties of 13% chromium stainless steel for ultra deep water petroleum production applications

I. Abud, S. Coelho, C. Barbosa, R. Centeno, O. Baptista Ferraz - *Instituto Nacional de Tecnologia, Rio de Janeiro, Brazil*

15.20 Development of high-strength corrosion-resistant austenitic TWIP steel

L. Mújica - *Ruhr-Universität Bochum and Max-Planck Institut für Eisenforschung, Düsseldorf, Germany*

S. Weber - *Ruhr-Universität Bochum and Helmholtz-Zentrum Berlin, Germany*

W. Theisen - *Ruhr-Universität Bochum, Germany*

15.40 Coffee break

18.15 Departure from Parc Hotel to Verona

19.00 Visit to the Arena of Verona

20.00 Conference Dinner at Grand Guard in Verona

STRUCTURE & PROPERTIES I

Chairpersons: D.V. Edmonds, P. Hodgson

9.00 Keynote

Microstructure-properties relationship of advanced high/ultrahigh strength bainitic steels

C. Garcia-Mateo, F.G. Caballero, C. Capdevila, C. Garcia de Andres - *CENIM-CSIC, Madrid, Spain*

9.30 Microstructural and mechanical characterizations of carbide-free bainitic steels

J.C. Hell, N. Gey, A. Hazotte - *LETAM (FRE CNRS 3143), Metz, France*

S. Allain, M. Crouvizier, T. Mastrorillo - *ArcelorMittal Research, Maizières-Lès-Metz, France*

J.P. Chateau, M. Dehmas - *Institut Jean Lamour (UMR CNRS 7198), Nancy, France*

9.50 Effect of grain refinement to 1 μm on deformation and fracture mechanisms in ferrite/martensite dual-phase steels

M. Calcagnotto, D. Ponge, D. Raabe - *Max-Planck-Institut für Eisenforschung GmbH, Düsseldorf, Germany*

10.10 In-situ strain and damage analyses of dual-phase steels at micro-scale using digital image correlation

H. Ghadbeigi, C. Pinna, J.R. Yates - *The University of Sheffield, United Kingdom*

S. Celotto - *Corus RD&T, IJmuiden, The Netherlands*

10.30 Super-high strength steel material for high loaded power-train components in the racing industry

I. Siller - *Böhler Edelstahl GmbH & CoKG, Kapfenberg, Austria*

P. Harvey - *Böhler Special Steels, Oldbury, United Kingdom*

10.50 Coffee break

11.10 Keynote

The new development of Mn-series air-cooled and water-quenched bainitic steels

B. Bai, G. Gao, Y. Zheng, Z. Yang, H. Fang - *Tsinghua University, Beijing, P.R. China*

11.40 Strengthening of cold rolled HSLA steels by rapid transformation annealing (RTA)

C. Lesch - *Salzgitter Mannesmann Forschung, Germany*

12.00 Microstructural characterization and mechanical behaviour of steel foams featured by different pore distribution and complex microstructure

C. Mapelli, A. Gruttadauria, D. Mombelli - *Politecnico di Milano, Italy*

E.M. Castrodeza - *Universidade Federal do Rio de Janeiro, Brazil*

12.20 V-Micro-alloying and hot deformation control of structural steel

E.H. El-Shenawy - *Worker's University, Cairo, Egypt*

T. El-Bitar, A. Mohammed - *CMRDI, Cairo, Egypt*

12.40 High interstitial stainless austenitic steel: as-cast vs. ESR and hot worked

N. Nabiran, H. Berns - *Ruhr-Universität, Bochum, Germany*

S. Riedner - *Deutsche Edelstahlwerke, Witten, Germany*

13.00 Lunch

STRUCTURE & PROPERTIES II

Chairpersons: B.C. De Cooman, H.J. McQueen

14.10 Keynote

The recent development of steels with carbide-free acicular microstructures containing retained austenite

D. Edmonds - *University of Leeds, United Kingdom*

D. Matlock, J. Speer - *Colorado School of Mines, Golden, USA*

14.40 The strain-hardening behaviour of Q&P steels

A. Dimatteo, R. Valentini, M. DeSanctis, G. Lovicu - *Università di Pisa, Italy*

M.R. Pinasco - *Università di Genova, Italy*

15.00 Experimental investigation on low – carbon quenched and partitioned steel

M.R. Pinasco, M.G. Ienco, M. Fabbreschi, E. Pastore, A. Saccone, S. De Negri - *Università di Genova, Italy*

R. Valentini - *Università di Pisa, Italy*

15.20 The influence of incremental deformation of AHSS on stabilisation of retained austenite

L. Kucerová, B. Mašek, D. Klauberová - *UWB in Pilsen, FORTECH, Czech Republic*

D. Hauserová - *COMTES FHT a.s., Dobřany, Czech Republic*

15.40 Coffee break

16.00 Hot forming behavior of high nitrogen steels

R. Ritzenhoff, V. Diehl, A. Hahn - *Energietechnik Essen GmbH, Germany*

16.20 The microstructure and mechanical properties of a ballmilled stainless steel powder consolidated by a micro-laser beam

S. Nachum, N.A. Fleck - *Cambridge University, United Kingdom*

A. Colella, L. Santin - *CSGI, Interuniversity Consortium, Sesto Fiorentino, Italy*

C. Noelke - *Laser Zentrum Hannover, Germany*

P. Matteazzi - *MBN Nanomaterialia, Vascon di Carbonera, Italy*

16.40 The hot ductility of TWIP steels

S.E. Kang - *POSCO, Korea*

A. Tuling - *University of Pretoria, South Africa*

J.R. Banerjee, B. Mintz - *City University, London, United Kingdom*

17.00 Tensile properties and cup formability of high Mn and Al-added TWIP steels

S.Y. Shin, S. Hong, H.S. Kim, S. Lee, N.J. Kim - *Pohang University of Science & Technology, Korea*

K-G. Chin, K.H. Kim - *POSCO, Republic of Korea*

18.15 Departure from Parc Hotel to Verona

19.00 Visit to the Arena of Verona

20.00 Conference Dinner at Grand Guard in Verona

ALLOYING DESIGN & MODELING

Chairpersons: A. Howe, J.M. Rodriguez-Ibabe

9.00 Keynote

Modelling of microstructure evolution in advanced high strength steels

M. Militzer, F. Fazeli, H. Azizi-Alizamini - The University of British Columbia, Vancouver, Canada

9.30 Multiphase microstructures in high-strength steel: improved control by better understanding

J. Sietsma - Delft University of Technology, The Netherlands

9.50 A new spring steel with improved ductility dedicated for high strength parabolic leaf springs

F. Perrard - Ascometal CREAS, Hagondange, France

F. Charvieux - Frauenthal Automotive Components, Chateaufort, France

J. Languillaume - Ascometal Usine D'Alleverd, Le Cheylas, France

10.10 The effect of composition and prior deformation on hardenability of direct quenched steels

M.C. Somani, J.M. Pyykkönen, L.P. Karjalainen - University of Oulu, Finland

D.A. Porter - Rautaruukki Oyj, Ruukki Metals, Finland

10.30 Development of a high ductile lean duplex stainless steel

C. Herrera, D. Ponge, D. Raabe - Max-Planck-Institut für Eisenforschung, Düsseldorf, Germany

10.50 Coffee break

ALLOYING DESIGN & MODELING

Chairpersons: T. Perez, J. Sietsma

11.10 Property and cost optimisation of novel UHS stainless steels via a genetic alloy design approach

W. Xu - ArcelorMittal Global R&D Gent, Belgium and Delft University of Technology, The Netherlands

S. van der Zwaag - Delft University of Technology, The Netherlands

11.30 Design of lean maraging TRIP steels

D. Ponge, J. Millán, D. Raabe - Max-Planck-Institut für Eisenforschung GmbH, Düsseldorf, Germany

11.50 Computational design of a high-strength martensitic spring steel

S.A.J. Forsik, S. van der Zwaag - Delft University of Technology, The Netherlands

P.E.J. River Diaz-del-Castillo - University of Cambridge, United Kingdom

12.10 Influence of annealing cycle parameters on final microstructure and mechanical properties of a new experimental low alloyed TRIP700 steel grade

R. Zubialde, J.M. Rodriguez-Ibabe - CEIT, San Sebastián, Spain

J. Belzunce, R. Coto, D. Álvarez, J.M. Artímez - Fundación ITMA, Avilés, Spain

12.30 Hot torsion simulation and mathematical modeling as tools for investigations on microstructure development in seamless tube rolling

R.N. Carvalho, M.A.C. Ferreira - Vallourec Research Belo Horizonte, Brazil

C. Gomes, M. Piette - Vallourec Research Aulnoye, Aulnoye-Aymeries, France

R. Barbosa - Universidade Federal De Minas Gerais, Brazil

12.50 Lunch

ALLOYING DESIGN & MODELING

Chairpersons: T. Perez, J. Sietsma

14.00 Keynote

Prediction of rolling contact fatigue behaviour in high strength steels employing irreversible thermodynamics

P.E.J. Rivera - *University of Cambridge, United Kingdom*

14.30 HSD® - steels, optimized high strength and high ductility austenitic steel

M. Otto, D. John, R. Schmidt-Juergensen, B. Springub - *Salzgitter Mannesmann Forschung, Germany*

M. Cornelissen - *Corus Strip Products IJmuiden, Netherlands*

B. Berkhout, L. Bracke, J. Patel - *Corus Research, Development and Technology*

WELDING II

Chairpersons: M. Fersini, I. Calliari

14.50 Resistance welding of high strength steels combinations

S. Schreiber, S. Keitel, R. Winkler, P. Zak - *SLV Duisburg NL der GSImbH, Germany*

15.10 Influence of weld strength mis-match on failure behaviour of strain hardened austenitic stainless steel

P. Nevasmaa, A. Laukkanen, M. Siren - *VTT, Espoo, Finland*

M. Somani, L. Karjalainen - *University of Oulu, Finland*

15.30 Coffee break

15.50 The role of Ni in high strength low alloy weld metals

J. Börjesson, J. Zachrisson, L. Karlsson - *ESAB AB, Göteborg, Sweden*

16.10 Microstructures and properties of UHSS laser welds

S. Němeček, T. Mužík - *MATEX PM, Pilsen, Czech Republic*

M. Urbánek, Z. Nový - *COMTES FHT, Dobruška, Czech Republic*

STRUCTURE & PROPERTIES III

Chairpersons: M. Vedani, D. Ponge

9.00 Keynote

Strength and toughness improvement in complex microstructures HSS by means of microstructural parameters optimization

A. Di Schino, M. Guagnelli, C. Guarnaschelli - *Centro Sviluppo Materiali, Roma, Italy*

9.30 The microstructure of continuously cooled tough bainitic steels

F.G. Caballero, C. Capdevila, J. Chao, C. Garcia-Mateo - *CENIM-CSIC, Madrid, Spain*

H. Roelofs, St. Hasler, G. Mastrogiacomo - *Swiss Steel AG, Emmenbrücke, Switzerland*

9.50 Microalloyed bainitic steels for high performance forged mechanical components

T. Sourmail, H. Michaud, E. d'Eramo, G. Baudry - *Ascometal CREAS, Hagondange, France*

10.10 Thermally activated dislocation dynamics in austenitic FeMnC steels at low homologous temperature

S. Allain, O. Bouaziz - *ArcelorMittal Maizieres Research, Maizieres les Metz, France*

J-P. Chateau - *Institut Jean Lamour, France*

10.30 Martensite formation in a maraging stainless steel

D. San Martin - *CENIM-CSIC, Madrid, Spain*

10.50 Coffee break

WELDING I

Chairpersons: M. Fersini, I. Calliari

11.10 Fracture characteristics of new ultra-high-strength steel with yield strengths 900-960 MPa

T. Nykänen, A. Ameri, T. Björk - *Lappeenranta University of Technology, Finland*

P. Nevasmaa, P. Karjalainen-Roikonen, A. Laukkanen - *VTT, Espoo, Finland*

T. Limnell, J. Kuoppala - *Rautaruukki Oyj, Raahе, Finland*

11.30 Increase of the fatigue life of LCF stressed super-high strength steels through new post weld treatment methods

P. Weidner, T. Ummerhofer - *Karlsruhe Institute of Technology, Germany*

11.50 Influence of power source on basic flux cored wire for welding high strength steels

G. Ehrhart, C. Chovet, O. Dubet, G. Plottier, S. Gregoire, E. Moine - *Air Liquide CTAS,*

Cergy-Pontoise, France

12.10 Effects of different welding technologies on metallurgical and mechanical properties of DP600 steel welded joints

A. Tiziani, P. Ferro, R. Cervo - *Università di Padova, DTG, Italy*

M. Durante - *E. Zanon SpA, Schio, Italy*

12.30 Effect of welding on the mechanical integrity of a AHSS-TRIP steel

F.A. Reyes-Valdés, V. H. López-Cortés, G.Y. Perez-Medina, H. F. Lopez - *Corporación Mexicana de Investigación en Materiales, Saltillo, Mexico*

M. Merlin, R.A. Vazquez-Aguilar - *Università di Ferrara, Italy*

I. Calliari - *Università di Padova, Italy*

12.50 Lunch

STRUCTURAL APPLICATIONS

Chairpersons: M. Boniardi, C.M. Sonsino

14.00 Keynote

Effect of overloads on the structural durability of welded high-strength steel joints under spectrum loading

C.M. Sonsino, H. Kaufmann, R. Wagener, C. Fischer, J. Eufinger - *Fraunhofer Institute for Structural Durability and System Reliability LBF, Darmstadt, Germany*

14.30 Structural integrity assessment of high strength cold drawn seamless steel tubes for hydraulic cylinders

M.E. Cristea, E. Paravicini Bagliani, P. Ferro - *TenarisDalmine, Dalmine, Italy*

14.50 High-strength seamless tubes with optimized weldability for crane construction

M. Frommert, J. Konrad, W. Scheller - *Salzgitter Mannesmann Forschung, Duisburg, Germany*

T. Müller, M. Schütz - *Vallourec & Mannesmann Deutschland, Düsseldorf, Germany*

15.10 High strength tubular columns and connections under earthquake, fire loading and fatigue

G. Zanon, A. Kumar, O.S. Bursi, F. Ferrario - *Università di Trento, Italy*

A. Giacobbe - *TenarisDalmine, Dalmine, Italy*

15.30 Coffee break

15.50 Technological properties of direct-quenched structural steels with yield strengths 900-960 MPa as cut lengths and hollow sections

M. Hemmilä, A. Hirvi, J. Kömi, R. Laitinen, M. Lehtinen, P. Mikkonen, D. Porter, J. Savola, S. Tihinen - *Rautaruukki Oyj, Raahе, Finland*

16.10 Development in high strength steel wires

F. Clerici, L. Lombardi - *Redaelli SpA, Milano, Italy*

THURSDAY, 21 OCTOBER 2010

Only for attendees who received notification of admittance from the Organising Secretariat.

8.30 Departure to Dalmine from Parc Hotel

10.00 Visit to TenarisDalmine plants

14.30 Return to Peschiera del Garda

POSTER SESSION

- **The effect of strain rate and temperature on mechanical properties of lean Mn TWIP steel**
I. Choi, J. Kim - *Korea Maritime University, Busani, Korea*
C.S. Lee - *POSTECH, Pohang, Korea*
Y.K. Lee - *Yonsei University, Seoul, Korea*
- **Impact energy absorption of stainless steel and multiphase high strength steels**
N. Peixinho, S. Costa - *Universidade do Minho, Portugal*
- **A research study on the production of advanced high strength steels to heavy chassing of FH12 applied in auto structural parts for the optimization of auto fuel performance**
S. Pourmostadam, G. Javanmardi - *Mobarakeh Steel Company, Esfahan, Iran*
- **Influence of the TMCP and heat treatments on the structure and mechanical characteristics of microalloyed steel plates**
E. Vasilescu - *Dunarea de Jos University, Galati, Romania*
- **Production process of DP steels on CSP-and HSM-line with early UFC**
X. Liu, X. Cai, X. Zhou, H. Yi, Z. Liu - *Northeastern University, Shenyang, China*
- **Effect of austenite conditioning in the non-recrystallization regime on the microstructures and properties of ultra high strength bainitic/martensitic strip steel**
A.J. Kaijalainen, P.P. Suikkanen, L.P. Karjalainen - *University of Oulu, Finland*
J.I. Kömi - *Rautaruukki Oyj, Raahе, Finland*
A.J. DeArdo - *University of Pittsburgh, USA and University of Oulu, Finland*
- **Non saturating strengthening at very large strains of a fully lamellar microstructure in a low carbon alloy**
O. Bouaziz, S. Allain, M. Gouné, E. Kassir, P. Barges, L. Jantzen - *ArcelorMittal Maizieres Research, Maizieres les Metz, France*
- **Study on microstructures and properties of welding wire rods**
Z. Huang, Y. Wang, J. Liu, K. Miao, Z. Yang - *Wuhan Iron and Steel (Group)*
- **Effect of secondary refining process and molybdenum content on the mechanical properties of 0.6%Ti cobalt free maraging steel**
H. Halfa, A. Fathy, T. Mattar, M. Eissa - *CMRDI, Cairo, Egypt*
- **Thermomechanical strengthening of high strength structural steel using cold rolling**
G.E. Kodzhaspirov, A. Rudskoy, G.Agasiants - *St.Petersburg State Polytechnical University, Russia*
- **Design a scrap loader using different alloy steels**
L. Solazzi - *Università di Brescia, Italy*
- **Roles of microalloying elements in steel products for advanced applications**
E. Vasilescu - *Dunarea de Jos, University of Galati, Romania*
M. Ciuta - *Arcelor Mittal Galati, Romania*
- **Influence of microalloying elements of HSLA steel on microstructure and mechanical properties**
D.A. Skobir, M. Godec, M. Jenko - *Institute of Metals and Technology, Ljubljana, Slovenia*
M. Balcar - *ŽDAS a.s., Žd'ar nad Sazavou, Czech Republic*

- **The design principle and engineering realization of novel super-high strength Q-P-T steels**
Y. Rong, H. Yu, Z. Shi - *Shanghai Jiao Tong University, Shanghai, P.R. China*
- **Development and application prospects of ultra-high strength stainless steel resistant to corrosion of marine environment**
Z-y. Yang, J-x. Liang, Z-b. Liu, Y-q. Sun, W-h. Li - *Central Iron and Steel Research Institute, Beijing, China*
- **Effects of process parameter variation on weld mechanical properties in the low carbon steel in gas metal arc welding**
A. Honarbakhsh-Raouf - *Semnan University, Iran*
E. Gharibshahiyan - *Oghab Afshan Industrial & Manufacturing Company, Semnan, Iran*
- **Heat affect zone evaluation in supermartensitic stainless steel**
R. Rodrigues, R. Carvalho, M. Ferreira, A. Silva - *V&M do Brasil, Belo Horizonte, Brazil*
P.J. Modenesi - *Universidade Federal de Minas Gerais, Belo Horizonte, Brasil*
- **Effect of Isothermal transformation temperature on precipitation behavior of nanometer-sized carbides of HSLA steels**
C-H. Lee - *POSCO, South Korea*
- **Substructure and texture analysis in spiral-welded pipe grades API X70 and X80**
M. Masimov, S. Bremer - *Salzgitter Mannesmann Forschung GmbH, Germany*
- **The effect of metallurgical and process parameters on high toughness API-X80 grade hot rolled strips**
J-h. Bae, K. Kim - *Posco, Gwangyang-Shi, South Korea*
- **High strength high nitrogen medium carbon low nickel stainless steels**
M. Eissa, H. El-Faramawy, T. Mattar, S. Ghali - *CMRDI, Cairo, Egypt*

**POSTERS WILL BE DISPLAYED
FOR THE ENTIRE PERIOD OF THE CONFERENCE**

GENERAL INFORMATION

Organizing Secretariat

AIM - Associazione Italiana di Metallurgia

Piazzale Rodolfo Morandi 2,
I - 20121 Milano, Italy
Tel.: +39 02.7602.1132 or +39 02.7639.7770
Fax +39 02.7602.0551
E-mail: aim@aimnet.it
Conference website:
www.aimnet.it/shss2010.htm

Conference Venue

The Conference will be held at the **Parc Hotel Paradiso & Golf Resort**, Via Brolo, 2/a - 37014 Castelnuovo del Garda, close to Peschiera del Garda.
(Tel. +39-045-64053003 or +39-045-64053001;
e-mail: eventi@parchotels.it;
website: **<http://www.parchotels.it/ParcHotel.asp>**).

Language

The official language of the Conference will be English.

Sponsorship

Different types of sponsorship options are available for the Conference. For information please refer to the Conference Secretariat (aim@aimnet.it Tel. +39-0276397770 - Fax. +39-02-76020551)

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.

Technical Visit

A technical visit to TenarisDalmine will be scheduled on the morning of **Thursday 21 October 2010**. Subscription to the visit closed, since it was reached the maximum number of visitors.

Tenaris is a leading supplier of tubes and related services for the world's energy industry and certain other industrial applications. Through an integrated global network of manufacturing, R&D and service facilities, it works closely with its customers to meet their needs for the timely supply of high performance products in increasingly complex operating environments. Tenaris has annual revenues of US\$8 billion and 22,500 employees.

TenarisDalmine - the steel pipe operations of Tenaris in Italy - is the top Italian producer of seamless steel tubes with operations in 5 plants: Dalmine, Arcore, Costa Volpino, Piombino and Sabbio Bergamasco. Production in Italy includes seamless hot rolled, cold-drawn tubes for the energy, automotive and mechanical industries as well as gas cylinders for industrial gases and for NGV application.

GENERAL INFORMATION

Social Programme

A social programme has been designed to give delegates the opportunity to meet informally and enjoy Peschiera del Garda's atmosphere.

Aperitivo di benvenuto (Get-together cocktail)

A get-together cocktail will be offered on October 17, 2010 at 19:00.

Welcome buffet

A Welcome buffet will be offered on 18 October 2010, at 13:10.

Guided Visit to the Arena of Verona and Conference dinner

In the evening of 19 October 2010 at 20.00 a Conference dinner will be served at Palazzo della Gran Guardia in Verona, in Piazza Brà. The Grand Guard is an imposing building, whose stone stair access leads to the deep and grandiose portico, which is supported by twelve pillars with full centre arches. The piano nobile aligns five great central arched windows.

If the weather allows it, the dinner will be preceded by a guided visit to the Arena, the Roman amphitheatre located, as Grand Guard, in Piazza Brà. The buses to Verona will leave at 18:15 from Parc Hotel.

Accompanying Persons Programme

The following guided tours will be available for accompanying persons.

If you wish to attend the tours, please fill in the enclosed form and send it **before September 30, 2010** to the Conference Secretariat by e-mail (aim@aimnet.it) or fax (+39 02 76020551).

Monday, 18 October 2010

Half-day excursion to Sirmione: departure from the hotel to Sirmione at 10.00 hours with private minibus, meeting with the local guide of Sirmione at the coach park in Sirmione. The Penisola of Sirmione will then be reached on foot. Guided visit including the Roman Villa (entrance extra). Free time until 13.00 when the minibus will return to the hotel.

Minimum number of participants: 10

Cost per person: 48 € (vat included)

Tuesday 19 October 2010

Half-day excursion to Verona: departure from the hotel to Verona at 09.30 hours with private minibus and tour escort, meeting with city guide for a panoramic city tour by minibus, walking tour of the city from the Arena along Via Mazzini to Juliet's House, Piazza delle Erbe and Piazza Signoria, followed by approx. 1½ hours of free time. Arrival back to the hotel is expected to be at approx. 14.30.

Minimum number of participants: 10

Cost per person: 60 € (vat included)

REGISTRATION INFORMATION

REGISTRATION FEES

STANDARD RATES

Delegates:	Eur 780,00 (*)
Academics/Chairmen of the session:	Eur 660,00 (*)
** Students:	Eur 380,00 (*)

AIM MEMBERS RATES

Delegates:	Eur 680,00 (*)
Academics/Chairmen of the session:	Eur 560,00 (*)
AIM Junior Members:	Free

(*) Revenue Stamp included

Accompanying persons	Eur 108,00 (VAT included)
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(includes only aperitivo di benvenuto, welcome buffet, guided visit to the Arena of Verona and Conference dinner)

Registration fees include admittance to technical sessions, Conference bag with CD-Rom proceedings, coffee breaks, lunches, aperitivo di benvenuto, welcome buffet, guided visit to the Arena of Verona and Conference dinner. For non-members the fee includes AIM Membership for the last quarter of 2010 and for the year 2011.

**** Students** will have to provide valid proof of student status. Standard Student rate includes access to technical sessions, Conference bag with CD-Rom proceedings, coffee breaks, lunches, aperitivo di benvenuto and welcome buffet. **It does not include the Conference dinner.**

Cumulative registrations for over 3 delegates from the same company will entitle to a discount of 15% of the total amount.

Payment and remittance

- by non-transferable bank draft or cheque, negotiable in Italy, to the order of Associazione Italiana di Metallurgia - AIM
- by bank transfer, to the order of Associazione Italiana di Metallurgia - AIM at "Banca Popolare Commercio e Industria", Branch no. 2 - Milano, account no. 000000022325 - cod. ABI 05048 - CAB 01602 - cin L, IBAN: IT92L0504801602000000022325, swift code POCIITM1002. The transfer order must specify the name of the delegate and the reference "SHSS 2010". A copy of the transfer order

must be sent to AIM, together with the Registration Form.

- by credit card (Visa, Carta Sì, Mastercard, American Express and Diners) online (www.aimnet.it/shss2010.htm);
- by credit card (Visa, Carta Sì, Mastercard, American Express and Diners) and cash at the registration desk in Peschiera del Garda (**not for speakers**).

Registration

If you plan to attend, please download the Registration Form on the conference website www.aimnet.it/shss2010.htm or fill in the enclosed Registration Form and send it to the Organising Secretariat at your earliest convenience, but **not later than October 8, 2010**.

Please use a separate form for each participant. Photocopies can be used. Please contact the Organising Secretariat by fax or e-mail, if possible.

On-site registration

All attendees must be registered at the registration desk, located in the foyer of Parc Hotel, Via Brolo, 2/a - 37014 Castelnuovo del Garda (VR). Attendees will be able to register on **Sunday 17 October 2010 from 17.00 to 18.30**. Registration will continue the following days at the on-site registration desk.

REGISTRATION INFORMATION

Cancellation and refund policy

A refund, less 20% deduction for administrative costs, will be issued for written cancellations received by **September 30, 2010**.

For attendees who notify their cancellation after **September 30, 2010** or will not attend the Conference, **a charge of 100% of the conference fee** will be with-held and a copy of the proceedings will be sent after the event.

Insurance

The Organising Secretariat cannot assume any responsibility for personal accident, loss or damage to the private property of participants and accompanying persons, which may either occur during or arise from the conference.

Participants should therefore take whatever steps they consider necessary as regards insurance.

Travel and accommodation

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 out-flowing 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 southeastern morainic hills of Lake Garda and is rich of historical remains, from the crenelated 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.

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.

ACCOMMODATION

An allotment of rooms has been reserved for conference attendees at:

PARC HOTEL PARADISO & GOLF RESORT

Via Brolo, 2/a · 37014 Castelnuovo del Garda (VR)

Tel. +39-045-64053003 or +39-045-64053001 · Fax +39-045-64053005

e-mail: eventi@parchotels.it · website: <http://www.parchotels.it/ParcHotel.asp>

Hotel reservation

To reserve accommodation, the attached Hotel Reservation Form should be completed and transmitted to PARC HOTEL PARADISO & GOLF RESORT by September 30, 2010.

HOTEL RATES

(per night, per person, Bed & Breakfast board, SERVICE and VAT included)

Hotel	Double Room Single Use	Double Room (per person)	Available Rooms
Parc Hotel	€ 75,00	€ 60,00	130
Golf Hotel	€ 65,00	€ 55,00	60
Eden Residence	€ 45,00	€ 35,00	100

Booking is on a first come, first served basis. The PARC HOTEL PARADISO & GOLF RESORT will charge the 50% of the total amount at the confirmation. The 50% sent will be deducted from the final bill to be paid before arrival.

The payment of the 50% must be made via credit card; accepted credit cards are: VISA (No Electron Visa), EUROCARD, MASTERCARD

Cancellation or booking changes can only be made writing to PARC HOTEL PARADISO & GOLF RESORT.

- Cancellation received **before September 30, 2010**: full refund, deducted booking fee
- Cancellation received **after September 30, 2010**/ no-show/ no notice: no refund

If you wish to reserve accommodation on your own,
you may visit the website:

<http://www.tourism.verona.it>

TIME TABLE

SUNDAY, 17 OCTOBER 2010

17.00	Registration
19.00	Aperitivo di benvenuto

MONDAY, 18 OCTOBER 2010

MICHELANGELO ROOM

8.00	Registration
9.00	Plenary session
11.40	Coffee break

MICHELANGELO ROOM

MARCO POLO ROOM

12.00	AUTOMOTIVE	THERMO-MECHANICAL PROCESSING
13.10	Welcome buffet	
14.10	AUTOMOTIVE	THERMO-MECHANICAL PROCESSING
16.10	Coffee break	
16.30	HIGH TEMPERATURE MATERIALS	THERMO-MECHANICAL PROCESSING

TUESDAY, 19 OCTOBER 2010

MICHELANGELO ROOM

MARCO POLO ROOM

9.00	PIPELINE	STRUCTURE & PROPERTIES I
10.50	Coffee break	
11.10	PIPELINE	STRUCTURE & PROPERTIES I
13.00	Lunch	
14.00	CORROSION & H-EMBRITTLMENT	STRUCTURE & PROPERTIES II
15.40	Coffee break	
16.00	STRUCTURE & PROPERTIES II	
18.15	Departure from Parc Hotel to Verona	
19.00	Visit to the Arena of Verona	
20.00	Conference Dinner at Grand Guard in Verona	

WEDNESDAY, 20 OCTOBER 2010

MICHELANGELO ROOM

MARCO POLO ROOM

9.00	ALLOYING DESIGN & MODELING	STRUCTURE & PROPERTIES III
10.50	Coffee break	
11.10	ALLOYING DESIGN & MODELING	WELDING I
12.50	Lunch	
14.00	ALLOYING DESIGN & MODELING	STRUCTURAL APPLICATIONS
	WELDING II	
15.30	Coffee break	
15.50	WELDING II	STRUCTURAL APPLICATIONS

THURSDAY, 21 OCTOBER 2010

8.30	Departure to Dalmine
10.00	Visit to TenarisDalmine plants
14.30	Return to Peschiera del Garda



FORMS

Please complete and return this form **BY OCTOBER 8, 2010 TO:**
ASSOCIAZIONE ITALIANA DI METALLURGIA - AIM
 Piazzale Rodolfo Morandi 2 · I - 20121 Milano, Italy · e-mail: aim@aimnet.it
 Tel. +39-02-76021132 / 02-76397770 · Fax +39-02-76020551 · Website: www.aimnet.it

2ND INTERNATIONAL CONFERENCE **SUPER-HIGH STRENGTH STEELS**

PESCHIERA DEL GARDA · ITALY · 17-20 OCTOBER 2010

REGISTRATION FEES	
STANDARD RATES	
Delegates:	Eur 780,00 (*)
Academics/Chairmen of the session:	Eur 660,00 (*)
** Students:	Eur 380,00 (*)
AIM MEMBERS RATES	
Delegates:	Eur 680,00 (*)
Academics/Chairmen of the session:	Eur 560,00 (*)
AIM Junior Members:	Free
(*) Revenue Stamp included	

Accompanying persons EUR 108.00 (VAT included)
(includes only aperitivo di benvenuto, welcome buffet, guided visit to the Arena of Verona and Conference dinner)

Registration fees include admittance to technical sessions, conference bag with CD-Rom proceedings, coffee breaks, lunches, aperitivo di benvenuto, welcome buffet, guided visit to the Arena of Verona and Conference dinner. For non-members the fee includes AIM Membership for the last quarter of 2010 and for the year 2011.

**** Students** will have to provide valid proof of student status. Standard student rate includes access to technical sessions, conference bag with CD-Rom proceedings, coffee breaks, lunches, aperitivo di benvenuto and welcome buffet. **It does not include the conference dinner.**

Cumulative registrations for over 3 delegates from the same company will entitle to a discount of 15% of the total amount.

**To register please fill-in the following registration form in all its parts. (It is also possible to register online)
 Please use BLOCK letters throughout form (photocopies can be used)**

PERSONAL AND INVOICING DATA

Family Name First Name(s)

Company Name

Company Fiscal Address

ZipCode Town Country

E-mail for invoicing and billing information

E-mail for correspondence

Tel. Fax

VAT and FISCAL CODE (if different)

Order ref. number (if requested on the invoice)

I will attend the Conference as: AIM MEMBER NON MEMBER

Delegate €

Speaker/Academic/Chairman of the Session €

Student €

AIM Junior Member free

n. Accompanying Persons €

Total amount being paid: €

by credit card (Visa, Carta Si and Mastercard) online (www.aimnet.it/shss2010.htm)
 by credit card (Visa, Carta Si, Mastercard, American Express and Diners) and cash at the registration desk in Peschiera del Garda (only for delegates)

We inform you that data collected will be treated following the normal institutional activity of AIM. In accordance to article 130 of the D.Lgs 196/03 in every moment the interested party has the right to oppose the treatment of one's personal data. Your data will be dealt with in accordance of the D.Lgs. in 30th June 2003 n.196, guaranteeing the rights of the interested parties foreseen in the 7 art. of the Decree. We also inform you that AIM will communicate to foreign partners the personal data only for above reasons. We also inform you that your personal data will be on the list of the conference participants. In the case that you **do not** want to appear on this list you may block the mail box. We also inform you that the holder of the personal data is AIM in Milan in Ple Morandi 2, while owner of the personal data is ing. Vincenzo Crapanzano, available near the AIM offices.

by non-transferable bank draft or cheque, negotiable in Italy, to the order of Associazione Italiana di Metallurgia - AIM

by bank transfer, to the order of Associazione Italiana di Metallurgia - AIM at "Banca Popolare Commercio e Industria", Branch no. 2 - Milano, account no. 000000022325 - cod. ABI 05048 - CAB 01602 - CIN L, IBAN: IT92L0504801602000000022325, swift code POCIITM1002. The transfer order must specify the name of the delegate and the reference "SHSS 2010". A copy of the transfer order must be sent to AIM, together with this Registration Form

Date

Signature

2ND INTERNATIONAL CONFERENCE SUPER-HIGH STRENGTH STEELS

PESCHIERA DEL GARDA · ITALY · 17-20 OCTOBER 2010

Please send this form by **SEPTEMBER 30, 2010** to:
eventiparchotels.it

PARC HOTEL PARADISO & GOLF RESORT · EVENTS OFFICE
Tel: +39 045 64053003/3001 · Fax: +39 045 64053005

Please use BLOCK letters throughout form

PARTICIPANT (to insert X)

Prof. Dr. Mr. Mrs.

Family Name First Name

Address

Zip Code Town Country

Tel. Mobile phone Fax E-Mail

ACCOMPANYING PERSON (to insert X)

Prof. Dr. Mr. Mrs.

Family Name First Name

HOTEL RATES

(per night, per person, Bed & Breakfast board, SERVICE and VAT included)

Hotel	Double Room Single Use	Double Room (Per Person)	Available Rooms
Parc Hotel	€ 75,00	€ 60,00	130
Golf Hotel	€ 65,00	€ 55,00	60
Eden Residence	€ 45,00	€ 35,00	100

PLEASE BOOK ON MY NAME

n. double room single use Parc Hotel Golf Hotel Eden Residence

n. double room Parc Hotel Golf Hotel Eden Residence

Special needs: Arrival date Departure date Total Night

Means of transport: place of arrive Plane Train Car

I need also a transfer service from to the Conference venue for n. people on

Total cost 50% Advance payment *The 50% sent will be deducted from the final bill to be paid before arrival*

Notes:

PAYMENT

TOTAL AMOUNT:

Booking is on a first come, first served basis. The HOTEL PARADISO & GOLF RESORT will charge the 50% of the total amount at the confirmation. The 50% sent will be deducted from the final bill to be paid before arrival. The payment of the 50% must be made via credit card; accepted credit cards are: VISA (No Electron Visa), EUROCARD, MASTERCARD. Please fill in the following empty fields:

VISA (No Electron Visa) EUROCARD MASTERCARD

No. Expiry date
(month and year)

and CIV number (the 3 security numbers that are behind the card)

Card Holder

I authorize the withdrawal of € for Hotel Booking

Date Signature

Cancellation or booking changes can only be made writing to PARC HOTEL PARADISO & GOLF RESORT.

- Cancellation received **before September 30, 2010**: full refund, deducted booking fee
- Cancellation received **after September 30, 2010**/ no-show/ no notice: no refund

Please send the invoice /receipt to:

Heading

Address

Zip code Town

Country

Vat number (only for Italians)

The invoice relevant to the accommodation will be issued directly by the PARC HOTEL PARADISO & GOLF RESORT. The hotel booking is reserved to regularly registered participants. A confirmation letter, including all booking details, will be forwarded to the participant after the receipt of the due payment.

Date Signature

In compliance with the Italian Law 196/2003 (Privacy law and treatment of personal data) we inform you that we may need to give your personal data to outside parties (companies, travel agencies, shipping agencies, etc...) which cooperate with PARC HOTEL PARADISO & GOLF RESORT for the organisation of this event. If you sign here below, you authorise PARC HOTEL PARADISO & GOLF RESORT to release your personal data.

Date Signature

2ND INTERNATIONAL CONFERENCE
SUPER-HIGH STRENGTH STEELS

PESCHIERA DEL GARDA · ITALY · 17-20 OCTOBER 2010

If you wish to attend the tours, please fill in the enclosed form and send it **before SEPTEMBER 30, 2010** to the Conference Secretariat by e-mail (aim@aimnet.it) or fax (+39 02 76020551).

Please use BLOCK letters throughout form

Family Name First Name

Address

Zip Code Town Country

Tel. Fax E-Mail

Please reserve me:

n. vouchers

for **Half-day excursion to Sirmione** (Monday, 18 October 2010)

Departure from the hotel to Sirmione at 10.00 hours with private minibus, meeting with the local guide of Sirmione at the coach park in Sirmione. The Penisola of Sirmione will then be reached on foot. Guided visit including the Roman Villa (entrance extra). Free time until 13.00 when the minibus will return to the hotel.

Minimum number of participants: 10

Cost per person: 48 € (vat included) €

n. vouchers

for **Half-day excursion to Verona** (Tuesday 19 October 2010)

Departure from the hotel to Verona at 09.30 hours with private minibus and tour escort, meeting with city guide for a panoramic city tour by minibus, walking tour of the city from the Arena along Via Mazzini to Juliet's House, Piazza delle Erbe and Piazza Signoria, followed by approx. 1½ hours of free time. Arrival back to the hotel is expected to be at approx. 14.30.

Minimum number of participants: 10

Cost per person: 60 € (vat included) €

Total amount being paid: €

For administrative purposes, we need you to fill in the following form, where you confirm your commitment to pay.

I undersigned

commit myself to pay the sum due of Euros (*) to the SHSS Conference secretariat on arrival in Peschiera del Garda.

Date Signature

p.s. The above mentioned tours will be guaranteed with a minimum participation of 10 people.

(*) I am aware that the Organizing Secretariat will not be organised to apply itself any change rate



SUPER-HIGH STRENGTH STEELS

Other sponsors



SSAB



Conference Organising Secretariat

ASSOCIAZIONE ITALIANA DI METALLURGIA

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