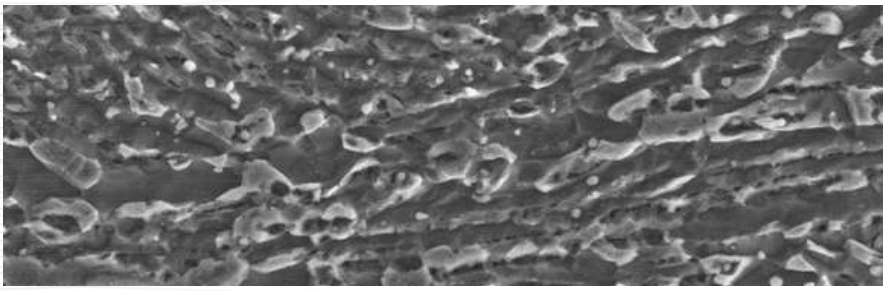
WORKSHOP

HIGH-STRENGTH STEELS.

PROPERTIES, APPLICATIONS AND THE FUTURE



19 NOVEMBER 2026

VICENZA

UNIVERSITÀ DEGLI STUDI DI PADOVA

In today's industrial landscape, the technological challenge lies in striking a balance between lightness, safety, and sustainability. High-strength steels are no longer merely an alternative to traditional materials, but they represent a cornerstone of innovation in sectors such as the automotive industry, aerospace, and modern infrastructure. This workshop aims to explore the "new era of steels", analyzing how microstructural modifications enable high tensile strengths to be achieved without sacrificing formability, while allowing thickness reduction and maintaining structural integrity. The discussion will center on the trade-off between mechanical strength and ductility, and such as combination of martensite and bainite austenite and the deriving TRIP (Transformation-Induced Plasticity) effect, allow for increasing the durability of the components, reducing the energy consumption and the absorption of high impact energy, thereby maximizing safety. The focus will cover the entire steel product range: flat and long products.

Nel panorama industriale contemporaneo, la sfida tecnologica si gioca sull'equilibrio tra leggerezza, sicurezza e sostenibilità. Gli acciai alto resistenziali non rappresentano più una semplice alternativa ai materiali tradizionali, ma costituiscono il cardine fondamentale per l'innovazione in settori come l'automotive, l'aerospazio e le infrastrutture moderne. Questo workshop si propone di esplorare la "nuova era dell'acciaio", analizzando come le modifiche microstrutturali consentano di raggiungere carichi di rottura elevati senza sacrificare la formabilità, con la capacità di ridurre gli spessori mantenendo l'integrità strutturale. Il cuore della discussione verterà sulla dualità tra resistenza meccanica e duttilità, e su combinazioni di martensite, bainite, austenite combinate con l'effetto TRIP (Transformation Induced Plasticity) permettano di migliorare la durabilità dei componenti, ridurre il consumo energetico e assorbire grandienergie d'urto, massimizzando la sicurezza. Il focus riguarderà l'intera gamma siderurgica: prodotti piani e lunghi.

ORGANISED BY

Technical Committee

Heat treatment and Metallography

of

ASSOCIAZIONE ITALIANA DI METALLURGIA

WORKSHOP CHAIRS

Mattia Franceschi
CENIM - CSIC

Marco Belfi
Politecnico di Milano

LANGUAGE

The workshop will be held in English.

ORGANISING SECRETARIAT

ASSOCIAZIONE ITALIANA DI METALLURGIA

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GS2634

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THURSDAY, 19 NOVEMBER 2026

VICENZA, UNIVERSITÀ DEGLI STUDI DI PADOVA

08:45 Participant registration

09:00 Welcoming and workshop presentation
Workshop chairs

09:10 Breaking the Paradox: Advanced Strategies to Overcome the Strength-Ductility Trade-off in Advanced High-Strength Steels
Superare il paradosso: strategie avanzate per risolvere il compromesso tra resistenza e duttilità negli acciai avanzati ad alta resistenza
MATTEO VILLA (Politecnico di Bari)

09:50 AHSS: physical metallurgy and production routes
AHSS: metallurgia fisica e cicli produttivi
RADHAKANTA RANA (Tata Steel Europe)

10:40 Coffe break

11:10 Medium Manganese steels
Acciai al manganese medio
MATTIA FRANCESCHI (CENIM-CSIC)

11:50 Advanced Bainitic Steels
Acciai bainitici avanzati
CARLOS GARCIA-MATEO (CENIM-CSIC)

12:40 Lunch

14:00 Quenching and Partitioning: principles, opportunities and limitations
Tempra e partizionamento: principi, opportunità e limitazioni
MARCO BELFI (Politecnico di Milan)

14:40 Selection and validation of advanced high strength steel for automotive application
Selezione e validazione degli acciai avanzati ad alta resistenza per applicazioni automobilistiche
VALENTINA DELLACA' (CRF)

15:20 Hot press forming steels
Acciai per formatura a caldo
RADHAKANTA RANA (Tata Steel Europe)

16:00
16:30 **Closing Remarks and Roundtable Discussion**

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General information

VENUE

The workshop will be held in Vicenza at the Università degli Studi di Padova. AIM Secretariat will send participants (to the email addresses provided during registration) further logistical information.

REGISTRATION INFORMATION

To benefit from the reduced registration fee, the registration form and payment must be received by AIM Organizing Secretariat no later than October 26, 2026.
Registration will close once the maximum number of participants has been reached. AIM Secretariat will send confirmation of registration to the email address provided on the completed registration form.
Registration is also possible online at www.aimnet.it

REGISTRATION FEES (PER PERSON)

Reduced Fees (for registrations received by October 26, 2026)

AIM Members: €210.00* (including stamp duty)

Non-Members: €280.00 + 22% VAT

Standard Fees (for registrations received after October 26, 2026)

AIM Members: €260.00* (including stamp duty)

Non-Members: €330.00 + 22% VAT

* Registration fees for AIM Members are exempt from VAT.

Registration fee includes attendance at the presentations, any materials prepared by the speakers, and the lunch indicated in the program.
A 15% discount is available for group registrations of 3 or more participants from the same company. To qualify for this discount, all registration forms must be submitted simultaneously to the AIM Secretariat.

AIM Junior Members may attend the event free of charge, provided that the registration form is submitted by **October 26, 2026.** For registrations received after this date, a contribution fee of **€50.00** will be required. In the event of non-attendance without cancellation at least **10 days** before the start of the event, a contribution fee of **€50.00** will be charged regardless of the registration date.

PAYMENT OF THE REGISTRATION FEE

The registration fee may be paid:
• by bank transfer to Account No. 010000480455, ABI Code 03032, CAB Code 01600, CIN Code M, payable to AIM at Credito Emiliano S.p.A. – Branch 052 – Milan Headquarters – IBAN: IT33M0303201600010000480455
• by credit card online through the website www.aimnet.it

Regardless of the payment method chosen, payment must be made before the start of the event, and the registration form must be submitted in order to complete the registration process.

CERTIFICATE OF ATTENDANCE

At the end of the event, participants may request a certificate of attendance.

CANCELLATIONS

All cancellations must be notified in writing. For cancellations received after **October 26, 2026,** or for participants who do not attend and have not submitted written notice of cancellation within the specified deadline, the full registration fee will be charged. In such cases, any documentation provided by the speakers will be sent to the registered participant.
AIM Junior Members are also required to submit written notice of cancellation within the specified deadlines of the event that they are unable to attend.

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LIABILITY

AIM and Fast Congress Centre accept no responsibility or liability for any injuries, losses, or damages that participants may incur during the event.

IMPORTANT NOTICE

Attendance at the event is restricted exclusively to registered participants.
Photography, audio recording, and video recording of the event (including any visits to plants, facilities, or laboratories) are strictly prohibited, as is the distribution, in whole or in part, of the presentations and course materials.
Participants may be photographed, filmed, and/or audio-recorded by the organizers during the event for documentation and promotional purposes.

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FILL IN ONLINE

The online registration form is available on the website https://www.aimnet.it/hss.shtml

Family name .....

Name .....

E-mail .....

Tel .....

Mobile.....

Role .....

I will join the event as ◯ **AIM MEMBER** ◯ **NON -MEMBER**

INVOICE INFORMATION

Company (legal name) .....

Address.....

ZIP/Postal Code / City / Province .....

VAT Number / Tax ID.....

SDI (Recipient Code).....

Purchase Order No.....

Email (Billing or Certified Email/PEC).....

PAYMENT METHOD

◯ Advance payment by bank transfer (copy attached)

◯ Advance payment by credit card online (at www.aimnet.it)

◯ Payment upon receipt of invoice (by bank transfer or credit card)

The registration fees and payment details are provided in the "General Information" section of the event programme. The registration fee must be paid before the start of the event.

Date and place .....

Signature.....

PRIVACY NOTICE

By signing this registration form, you confirm that you have read and accepted the privacy notice available on the website https://www.aimnet.it/public/PDF/Informativa_Privacy_AIM.pdf

PRIVACY NOTICE

I, the undersigned, have read the privacy notice and consent to AIM processing my personal data in accordance with Articles 13 and 14 of EU Regulation No. 679/2016 of 27 April 2016 (GDPR).

Furthermore, I authorize AIM to:
include my name in the list of participants of the event:

◯ **YES** ◯ **NO**

to receive invitations to relevant events, including those organized by other metallurgical associations worldwide:

◯ **YES** ◯ **NO**

ORGANISING SECRETARIAT

ASSOCIAZIONE ITALIANA DI METALLURGIA

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