



WMM '20

June 23rd to 25th, 2020 - Rome, Italy



ASSOCIAZIONE
ITALIANA
DI METALLURGIA

with the support of:



WMM '20



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SCOPE OF THE CONFERENCE

The series of International Conferences, Magnetism and Metallurgy was established in 2004 by the Institute of Metal Forming at the Technische Universität Bergakademie Freiberg by the enlightened initiative of Prof. Rudolf Kawalla and Prof. Jurgen Schneider.

WMM conferences take place every two years. The conferences of 2004, 2006, 2010, took place in Freiberg. The editions of 2008 and 2012 took place in Ghent and the last three editions took place respectively in Cardiff, 2014, Rome, 2016, and Dresden 2018. Starting from the next edition, as already announced in Dresden 2018, the organization of WMM series of conferences will be in charge of RINA.

Chairman of the conference will be Dr. Stefano Fortunati together with Prof. Rudolf Kawalla co-chairman of WMM'20. Dr Stefano Cicalè will be the Program Manager.

Prof Jürgen Schneider will continue to actively participate to the organization of WMM '20 conference.

Organised by RINA, the 9th International Conference Magnetism and Metallurgy WMM'20 will take place from June 23rd to 25th, 2020 in Rome, Italy. The consolidated aim of this series of International Conferences on Magnetism and Metallurgy is to bring together scientists from universities and research groups working on the development of magnetic materials, experts from the Industrial companies producing magnetic materials as well as electrical engineers from universities and industry, who are engaged in applications of magnetic materials.

The WMM '20 conference will be again a forum for the exchange of ideas on the status and further trends between experts from the industry and research institutes. The 9th International Conference WMM '20 in Rome, June 2020, will cover the latest developments, and participants will have the chance to discuss the progress in the field of Magnetism and Magnetic Materials and their Applications. The program will include invited lectures and posters.

All the contributions will be published in a book of conference proceeding. The participants will receive the book of proceedings at the conference site.

TOPICS OF THE WMM'20

- Electrical steels and other soft magnetic materials: advances in product quality, new grades, and applications
- Advances in manufacturing methods: metallurgical routes and technological solutions
- Status of the Use of Thin Slab and Thin Strip casting technology for GO and NGO
- Hard magnetic materials: trends in product grades and manufacturing processes
- Progress in modelling the evolution of microstructure and texture along the metallurgical processing route for electrical steels
- Relationships between microstructure and magnetic properties
- Surface quality and coatings development for GO/NGO electrical steel
- Advancement on magnetic materials characterizations
- Progress on modelling the effects of magnetic materials characteristics on the electrical machines performances
- Electrical steels for Electric Mobility applications (E-cars and power supply infrastructures): trends, technical solutions and strategies for development
- Development of Higher Efficient Motors and the role of electrical steels
- Optimum selection of electrical steels for given applications and optimum manufacturing methods

INTERNATIONAL ADVISORY COMMITTEE

Chair of committee

- Prof. Antony Moses, University of Cardiff, United Kingdom
- Prof. Jürgen Schneider, University of Freiberg, Germany
- Prof. Marco Villani, University of L'Aquila, Italy

Members

- Carlo Abbruzzese, RINA, Italy
- Erik Hilinski, Tempel Steel, US
- Indradev Samajdar IIT Mumbai, Indian Institute of Technology - Mumbai, India
- Jong-Tae Park, Posco, Korea
- Kay Hameyer, IEM RWTH Aachen, Germany
- Ludger Lahn, ThyssenKrupp Electrical Steel, ThyssenKrupp Electrical Steel, Germany
- Niklas Volbers, VAC, Germany
- Sebastião da Costa Paolinelli, Aperam South America, Brazil
- Shenglin Chen, BaoWu Iron and Steel Co., China
- Sigrid Jacobs, ArcelorMittal Global R&D, Belgium
- Stefan Siebert, Brockhaus Messtechnik GmbH, Germany
- Steve Sprague, Proto Lam LLC, US
- Fernando Landgraf, Institute of Technological Research (IPT), Brazil
- Yoshiyuki Ushigami, Nippon Steel Sumitomo Metals Corporation, Japan

Conference Chair

- Dr. Stefano Fortunati, RINA, Italy
- Prof. Rudolf Kawalla, Germany

Program Manager

- Dr. Stefano Cicalè, RINA, Italy.

WMM'20 Important Dates

- Abstract Submission [10.01.2020](#)
- Registration (early bird) [31.03.2020](#)
- Manuscripts Submission [01.04.2020](#)

SECRETARY'S OFFICE OF THE WMM'20

Dr. Elisabetta Amici, RINA

Via di Castel Romano, 100
00128, Rome, Italy
Mob: +39 335 6682147
Email: wmm20@rina.org

Dr. Ing. Cristina Forzanti, RINA

Viale Benedetto Brin 218, Terni
05100 Terni, Italy
P: +39 0744487306
Email: wmm20@rina.org

CONFERENCE WEBSITE

All the information about WMM20 can be found in the conference website.

<https://www.rina.org/en/wmm20>

REGISTRATION FEES

The registration fee includes conference proceeding, refreshments, lunches, welcome dinner on the first day as well as a social program and conference dinner at the second day.

- Conference attendance early bird: **650 EUR**
(up to 31.03.2020)
- Conference attendance: **750 EUR**
(after 31.03.2020)
- Exhibitors: **2500 EUR**
(conference fee + exhibition space fee)
- Conference attendance for PHD students (no social program): **350 EUR**
- Participation to Social Events for Accompanying person or PHD student: **100 EUR**
Including social program and conference dinner for second day only
- Participation to Social Events for Accompanying person or PHD student: **150 EUR**
Including social program and conference dinner for first and second day

For registration you are kindly asked to complete the registration form that can be found in the conference website.

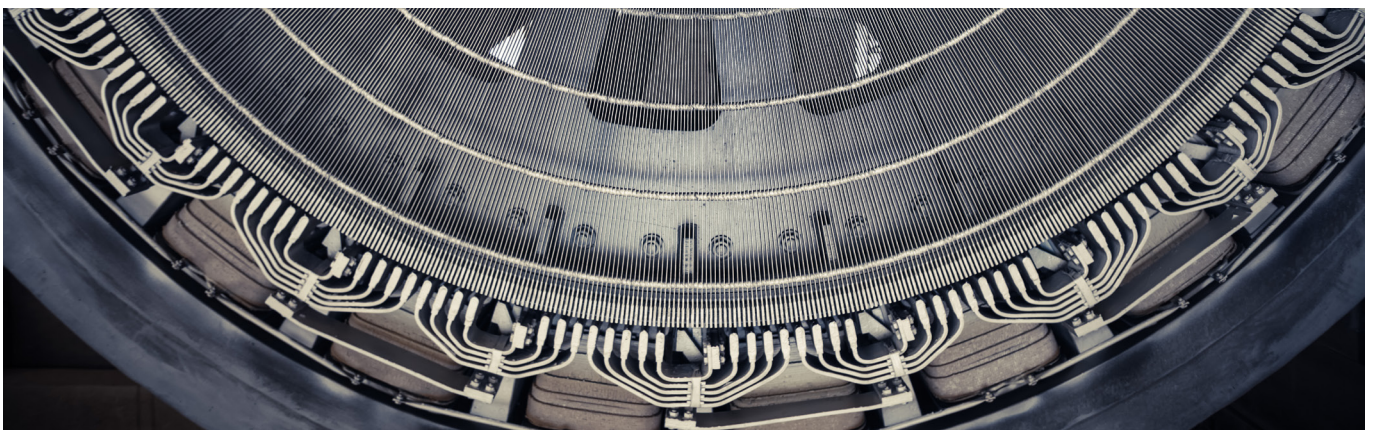
POSTERS AND EXHIBITS

WMM'20 will include a limited number of exhibits and poster papers. Preference will be given to posters presenting R&D results on materials technologies and/or devices. Authors of posters can present a paper of up to 15 pages that strictly follows the template and guidelines provided in the conference website. The papers should be uploaded in the conference website and will be submitted to the program manager that will inform applicants on their acceptance.

- POSTER SIZE DIMENSIONS: 0.7m (l) x 1 m (h). Panels to attach the posters will be provided at the conference
- EXHIBIT SPACE: table 1.80m x 0.70 m, two chairs, electric outlet for a maximum of 1 kw each. If there are different needs, possible supplement will be evaluated. Exhibitor roll-up or banner are well accepted

PROGRAM

The WMM'20 is planned to start at 10:00 AM of June 23th 2020 and to close at 5.00 PM of Wednesday, June 25th 2020. Secretary will be open for registration from the afternoon of June 22nd 2020 and throughout the entire conference. On the first day in the evening there will be the opportunity to visit the research facilities, laboratories and pilot plants of RINA in Castel Romano (Rome), where a welcome buffet dinner will be offered.



PRELIMINARY LIST OF INVITED SPEAKERS

NAME	AFFILIATION	SUBJECT FOR LECTURE	STATE
Dr. Ludger Lahn	Thyssenkrupp Electrical Steel	Developments in GO products	Germany
Dr. Stefan Zaefferer	Max-Planck-Institut fuer Eisenforschung	Origin of Goss grains in GO steel	Germany
Prof. Leo Kestens	University of Gent	Innovative methods to control texture evolution	Belgium
Prof. Luca Ferraris	Politecnico of Torino	Progress on modelling the effects of magnetic materials characteristics on the electrical machines performances	Italy
Dr. Sebastiao Paolinelli	Aperam South America	GO ES production through steckel mill	Brasil
Prof. Marco Villani	University of L'Aquila	Motor design optimization and role of elecSoft magnetic materials (or Motor design with unconventional Soft Magnetic materials)	Italy
Dr. Mircea Popescu	Motor Design Limited	Electrical steel and Motors performances, role of lamination thickness	Whales-UK
Prof. Indradev Samajdar	Indian Institute of Technology-Mumbai	Texture evolution during processing of GO/NGO strips	India
Dr. Eric Theisen	Metglas Inc	Overview about Amorphus/nanocrystalline materials and their production method recent new developments in Amorphus/ nanocrystalline applications	USA
Dr. Bernd Grieb	Magnequench GmbH	Bonded Magnets: developments in the field of material grades (e.g. new grades by improved processes, Cerium containing materials) and magnetization design improvements	Germany
Dr. Seil Lee	Posco	Final Annealing of NGO ES: effects by the Annealing Conditions on the resulting Microstructure and Texture	South Korea
Mr. Marco Alvelli	G-iron SRL	Shielding of low frequency EM fields	Italy
Dr. Shenglin Chen	Wuhan Iron and Steel Co.	Thin Strip Casting for Fe 6,5% Si.	People's Republic of China

PRELIMINARY LIST OF EXHIBITORS

Coiltech	https://www.quickfairs.net
Brockhaus	https://brockhaus.com/measurements/about-bmt/
G-Iron	https://www.g-iron.it
University of Freiberg	https://tu-freiberg.de/en/university
RINA	www.rina.org

MEDIA PARTNER

Webcom Communications Corporation	https://magneticmag.com
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PROCEEDINGS

The WMM'20 proceedings book including all the papers from invited speakers and posters will be printed in full color and distributed at the conference.

VISA APPLICATION

All regularly registered conference attendees who need an invitation letter for the VISA application can send their request to the wmm20 secretary mail address: wmm20@rina.org.

CONFERENCE VENUE

The 9th International Conference Magnetism and Metallurgy WMM'20 will take place in Rome at:

Hotel NH Roma Villa Carpegna
Via Pio IV,6. -
00165 Rome, Italy
T. +39 06 393731
nhvillacarpegna@nh-hotels.com
<https://www.nh-hotels.com/hotel/nh-romavilla-carpegna>

NH Roma Villa Carpegna is set in a quiet residential area, just a few kilometers away from the historical center and within easy reach of the Vatican City and St. Peter's square. The hotel offers an attractive alternative for your stay in Rome. Lying outside the bustling and chaotic center, it provides the perfect balance between city life and suburban tranquility.

During the warmer months guests can lie back and relax around the large swimming pool. Just a few minutes' drive away, the city's main metro line provides easy access to all major attractions and frequent buses will take you straight to the heart of the city. NH Roma Villa Carpegna has 201 comfortable rooms, all of which are decorated in classic style with wooden and red details. They all come equipped with TV, minibar and free Wi-Fi connection and offer views of the swimming pool or the garden. Every morning a healthy breakfast buffet is served to make you start your day in the right mood. The "Gelsomino" restaurant offer both regional and international dishes, prepared with the freshest ingredients by our experienced chef. If you prefer a quick snack, or just a glass of wine, our bar is the perfect choice.

After a long business meeting or a day sightseeing, guests can unwind and sunbathe by the peaceful outdoor swimming pool. If you're arriving by car, the hotel is provided with a private parking too. The hotel boasts its own congress center with 15 multi-purpose rooms, the biggest of which measures 370 square meters and can seat up to 350 people. Our attentive and supporting team can provide you with the required technologies: amplification system, flipchart, screen, overhead projector. The versatility of the spaces makes them suitable for any sort of planned event.

WMM20 CONFERENCE AREA

WMM20 conference will have at its disposal a very large and well-connected area:

- LEONARDO PLENARY ROOM devoted to the conference sessions
- RAFFAELLO ROOM to host the Exhibitors
- Leonardo Foyer to host the POSTER sessions

ACCOMMODATION AT HOTEL NH ROMA VILLA CARPEGNA 4*

For the conference delegates an allotment of 100 rooms is available at the NH Roma Villa Carpegna conference site with the following SPECIAL RATES:

Double Room Single Use Standard BB 129,00 EUR per room per night - IN 22/06/2020 OUT 25/06/2020 (3 nights)
American Buffet Breakfast included
Rome City Tax 6,00 EUR per person per day

These rates are valid by booking through the dedicated BOOKING SERVICE of the conference only.

How to Reach

ROMA Fiumicino Airport
27 km / 30 min

ROMA Termini train station
6 km / 15 min

Vatican City
2,7 km / 7 min

City centre
6 km / 15 min

SOCIAL EVENTS FOR ALL DELEGATES

First Day

- Visit to RINA Labs and Pilot Plants of Castel Romano, Rome
- Welcome dinner in a nearby farmhouse with traditional regional country cooking. Friendliness and warmth, nature, comfort and well-being, all immersed in greenery just a few kilometers from Rome

Second Day

- Guided Visit to Roman Sites: departure by private bus with English speaking local guide for a gorgeous panoramic visit of the most emblematic sights, monuments and streets of the Eternal City
- Conference dinner in one of the most prestigious and well-known Roman restaurants

HOTELS NEAR THE CONFERENCE VENUE

HOTELS 4 Stars

Cardinal Hotel St Peter
(4 minutes drive, 5 minutes walking, 400 mt)
Via Leone Dehon, 71 - Tel. 06 632252

Hotel Occidental Aurelia
(7 minutes drive, 20 minutes walking, 1500 mt)
Via di Torre Rossa, 80 - Tel. 06 6610551

HOTELS 3 Stars

Hotel Alessandrino
(7 minutes drive, 20 minutes walking, 1600 mt)
Via Clemente Alessandrino, 9 - Tel. 06 39674144

Hotel Gravina San Pietro
(7 minutes drive, 20 minutes walking, 1600 mt)
Via della Cava Aurelia, 17 - Tel. 06 39674205

Hotel Il Cantico
(7 minutes drive, 20 minutes walking, 1600 mt)
Via del Cottolengo, 50 - Tel. 06 94362401

Hotel San Pietro
(7 minutes drive, 20 minutes walking, 1600 mt)
Via Cardinal Cassetta, 9 - 06 630876

BED & BREAKFAST

- **Casa Piccole Ancelle di Cristo Re** (5 minutes drive, 15 minutes walking, 1100 mt)
Via Aurelia, 325 - Tel. 06 39366242
- **Villa San Giovanni Casa per Ferie di Suore** (5 minutes drive, 15 minutes walking, 1200 mt)
Via del Casale di S. Pio V, 1 - Tel. 06 6638977
- **Casa San Juan de Avila** (5 minutes drive, 15 minutes walking, 1300 mt)
Via Torre Rossa, 2 - Tel 06 88801391

