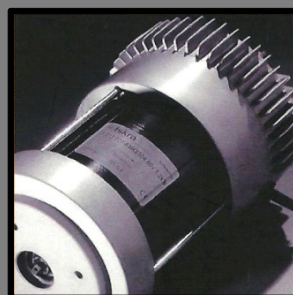
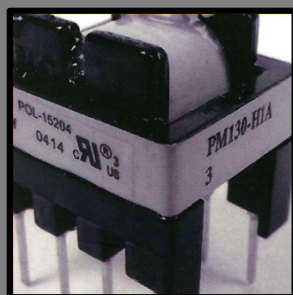


# 6<sup>th</sup> International Conference on Magnetism and Metallurgy

**WMM'14**

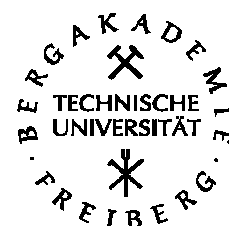
Co-sponsored by the  
UK Magnetics Society



Cardiff - UK

June 17<sup>th</sup> to 19<sup>th</sup>, 2014

## SECOND ANNOUNCEMENT With Preliminary Programme



# **International Conference: Magnetism and Metallurgy**

**WMM'14**

**June 17th June until 19th June, 2014**

**Cardiff, UK**

## ***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. The conferences 2006, 2008, 2010, and 2012 were held in cooperation with the Department of Material Science and Engineering at Ghent University. The 6<sup>th</sup> International Conference Magnetism and Metallurgy WMM'14 will take place at Cardiff University hosted by the Wolfson Centre for Magnetism, School of Engineering.



*Cardiff School of Engineering*

The WMM'14 is again co-sponsored by the UK Magnetism Society. The 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, as well as electrical engineers from universities and industry, who are engaged in applications of magnetic materials.

The WMM'14 will, like previous meetings, provide a general overview of status, trends and recent developments in the field of "Magnetism and Magnetic Materials and their Application". Invited papers will be presented by experts on magnetism and magnetic materials from industry and universities. In addition a restricted number of exhibits or poster presentations will be included in the programme. The 6<sup>th</sup> International Conference Magnetism and Metallurgy, WMM'14 will focus on the improvement of the understanding of the evolution of the microstructure along the processing route, the use of improved techniques, the status of

the material grades, applications in the fields of energy generation, higher energy efficient electrical machines and electrical machines operating at higher frequencies or under distorted voltage conditions as well as improved models for the evaluation of material effects in electrical machines.

We expect the same kind of audience as at the previous conferences. More than 110 participants from 21 countries were present at the 5<sup>th</sup> International Conference Magnetism and Metallurgy, WMM'12, 2012 in Gent. In addition to delegates from the academic world and from research institutions, participants from producers of magnetic materials attended the meeting. These included Arnold Magnetic Technologies, ThyssenKrupp Stahl, Voestalpine, Tempel Steel, Magnequench, Vacuumschmelze, ArcelorMittal, Aperam, Tata Steel, AK Steel Corporation, CD Wälzholz, NLMK, US Steel, Baosteel, Hoeganes, China Steel, Cogent Producers and users of electrical machines or electromagnetic components represented at the meeting included Roberg Bosch, Vaöeo, Alstom, ABB, Cogent Power, Schneider Electric, Daimler, Elesa Transformadoes SA. LCD Laser Cut, WISCO.

Presentations from 28 invited speakers from 14 countries demonstrated:

- driving forces of new developments are energy saving and environmental aspects as well as new process techniques for metallic materials,
- the complexity of the topic and the need for a more extensive cooperation between partners
- new or improved materials for power and electronic applications
- new rare earth magnets based on NdFeB
- alternative materials to electrical steels
- the status and further challenges in modelling the evolution of the microstructure along magnetic material processing routes,
- progress in modelling losses.

The organizers of the WMM'14 hope that the 6<sup>th</sup> International Conference WMM'14 in Cardiff 2014 will cover latest developments and demonstrate the progress with respect to status, trends and recent developments in the field of „Magnetism and Magnetic Materials and their Application”.

International experts from Europe, Japan, China, and USA will be again invited to cover the proposed topics of the 6<sup>th</sup> International Conference WMM'14.

***Topics of the WMM'14:***

- Advances in process techniques: metallurgical routes
- Application of new techniques for casting and hot rolling to electrical steels
- Progresses in electrical steel grades and other soft magnetic materials as well as hard magnetic materials
- Thin electrical steel grades
- Electrical steels with cube or other textures
- Electrical steels for energy efficient electrical machines and variable speed drives
- Improved material characterization and progress on modelling the effects of magnetic materials in electrical machines
- Progress in modelling the evolution of microstructure and texture along the metallurgical processing route

***Chairpersons:***

- Prof. R. Kawalla, Freiberg (kawalla@imf.tu-freiberg.de)
- Prof. Y. Houbaert, Gent (yvan.houbaert@ugent.be)
- Prof. A. Moses, Cardiff( mosesAJ@cardiff.ac.uk)

***Programme Chairman:***

- Prof. J. Schneider, Freiberg and Dresden  
(schneider.juergen@t-online.de)

***Local Organizing Committee:***

- Dr Phil Anderson – Cardiff University (Chair)
- Dr Jeremy Hall – Cardiff University
- Prof. Keith Jenkins – Cardiff University
- Dr Hugh Stanbury – Cardiff University
- Mr Roger Allcock – UK Magnetics Society
- Mr Alastair Stewart – UK Magnetics Society

***International Advisory Committee:***

- B. Grieb, Germany
- G. H. Johnston, USA
- S. Siebert, Germany
- S. Constantinides, US
- G. Ombach, Germany
- S. Fortunati, Italy
- Ye Feng, China
- F. Landgraf, Brazil

***Secretary's office of the WMM'14:***

Mr Alastair Stewart  
57 The Philog  
Cardiff  
CF14 1DZ  
United Kingdom

Tel: +44 (0)2920 626643

Fax: +44 (0)2920 626643 (please call before faxing)

Email: wmm14@cardiff.ac.uk

## **Registration:**

For registration please use the form given in the appendix or the form on the internet, see <http://www.imf.tu-freiberg.de/wmm2014>.

## **Deadline for pre-registration and payment: May 10<sup>th</sup> 2014**

|                                 | <b>Registration Fee</b> |
|---------------------------------|-------------------------|
| Up to May 10 <sup>th</sup> 2014 | £400                    |
| After May 10 <sup>th</sup> 2014 | £450                    |

The registration fee includes conference proceedings, refreshments, lunches, conference dinner and welcome party.

## **Programme:**

The programme comprises 26 invited presentations by experts and a poster session as well as an exhibition.

The list of speakers includes:

### ***FeSi Materials and Fabrication***

Guo Deng Wang – Univ. Shenyang, China

K. Jenkins – Tata Steel Europe

T. Okubo – JFE, Japan

B. Linzer – SVAI, Austria

Feng Zhang – Baosteel, China

K. Satzinger – Voestalpine, Austria

Chen Lingfeng – Shougang Qian`an Iron&Steel, China

Takeru Ichie - Nippon Steel&Sumitomo Metal Corporation

### ***Alternative Materials***

B. Grieb – Magnequench, Germany

A. Schoppa – PMG Füssen, Germany

T. Strache – VAC, Germany

T. Iriyama - Daido Steel Co., Japan

### ***Fundamentals and Material Characterization***

A.Moses – Univ. Cardiff, UK

S. Fortunati – CSM, Italy

Ping Yang – Univ. of Science and Technology, Beijing, China

B. Ponick - Leibniz Universität Hannover, Germany

G. Johnston – Tempel Steel, US

L. Suarez Fernandez – CTM, Spain

### ***Application***

G. Pasquarella – LCD Laser Cut, Switzerland  
M. Villani – Univ. of L`Aquila, Italy  
S. Constantinides – Arnold Magnetic Technologies, US  
B.B. Jensen - Univ. of Denmark  
S. Sprague – Proto Laminations, US  
K. F. Rasmussen - Grundfos Holding A/S, Denmark

The WMM'14 will start at 1.00 pm on Tuesday, 17<sup>th</sup> June, 2014 and end at 4.00 pm on Thursday, 19<sup>th</sup> June, 2014. The presentation time of invited papers will be 30 minutes including a short discussion. The conference language is English.

On Tuesday, 17<sup>th</sup> June, 2014 there will be an opportunity to visit the research facilities at the Institute of Energy, Cardiff University The visit will be followed by a welcome party from at the School of Engineering, Cardiff University

A conference dinner will be held on the evening of Wednesday, 18<sup>th</sup> June, 2014.

### ***Posters and Exhibition:***

The WMM'14 will include a restricted number of exhibits or poster papers. Preference will be given to posters, which give an overview on R&D and development of materials and/or devices. The programme manager will inform the candidates on their acceptance immediately.

Exhibitors (presentation of equipment, measuring devices, special materials, etc) will be required to pay an additional fee of £200. There is no additional fee for posters.

The application forms for posters as well as exhibition are given in the appendix or on the internet, see <http://www.imf.tu-freiberg.de/wmm2014>.

### ***Deadlines:***

Application form for poster with abstract - 14.03.2014

Application form for exhibition - 14.03.2014

### ***Proceedings:***

All participants will receive the workshop proceedings published in cooperation the TU BAF and UGent. This will include all invited and poster presentations.

***Location:***

Lively, elegant, confident, cosmopolitan, Cardiff caters for all tastes, offering everything from the excitement of a vibrant city life to the peace and tranquillity of the nearby coast and countryside. A city with both heritage and ambition Cardiff has a distinctive character, a good quality of life, and a growing national and international reputation.

It is presently host to numerous large and high profile events, including Britain's largest free summer festival. As the capital city of Wales it is home to many national institutions including the National Museum of Wales, the Wales Millenium Centre and the much-admired Millennium Stadium.



*Cardiff Castle*

The city centre skyline is testimony to its heritage and ambition, with landmark buildings ranging from the ornate civic centre to the historic Cardiff Castle. The famous Tiger Bay docklands have been substantially transformed into Cardiff Bay, a modern development of homes, shops, offices, visitor attractions, the Wales Millennium Centre and the National Assembly for Wales, all surrounding a huge freshwater lake.

Cardiff is well established as 'Europe's Youngest Capital' but its history stretches back over 2000 years to Roman times when the Romans first



established a fortified settlement on the banks of the River Taff. One thousand years later the Normans came to Cardiff.

The castle, or keep, which can be seen within the modern walls of Cardiff Castle, originates from this time and William the Conqueror came to Cardiff in 1081. Cardiff remained a small market town for the next few hundred years, but with the dawn of the Industrial Revolution, it came into its own. The city's greatest period of growth began in the 18th century with the development of the coal and iron industries in the South Wales valleys. In the early 19th century, first a canal and then the Taff Vale Railway linked Cardiff with Merthyr Tydfil and the Rhondda Valleys, at the time the greatest iron and coal centre in the world. Soon, Cardiff would itself achieve worldwide fame as a great coal-exporting ports.

The resultant growth in population and the massive coal wealth that was invested in Cardiff helped it win city status in 1905, just as it became the largest coal exporter in the world,

As the fortunes of Welsh coal waned in the 20th century, Cardiff transformed itself from a port city into the administrative centre of Wales. Cardiff would become the home of the National Museum of Wales and the Welsh Office. In 1955, it was made Capital of Wales.

### ***Conference Location:***

The workshop will be held at Cardiff University's conference facility located within the Business School close to the historic civic centre. This combines a state of the art lecture theatre with a dining hall, exhibition space and breakout rooms.

Julian Hodge Building, Cardiff University

Colum Drive

Cardiff

Wales

CF10 3EU

<http://www.cardiff.ac.uk/locations/locationsaz/index.html#julianhodge>

### ***How to reach Cardiff:***

There are daily international flights to Cardiff International Airport. The airport is situated 10 miles west of the city.

Buses and trains link the airport to the centre of the city. Taxi fares from the airport to the city typically are around £25.

Bus and train time information can be found on the airport's website [www.cwlfly.com](http://www.cwlfly.com) or tel: +44 1446 71111.

KLM City Hopper is convenient and provides worldwide air links.

London Heathrow Airport is 2 hours by train or 3 hours by coach from Cardiff, and there are other convenient international airports closer to Cardiff at Bristol & Birmingham.

**Hotel accommodation:**

Bookings to be made by individuals. If you book at any of the hotels below let them know that you are attending a Cardiff University event and they will give you the University rate subject to availability.

Cardiff is a popular tourist location and offers many other forms of accommodation in addition to those listed below which can be found on popular on-line directories.

**Hilton Cardiff Hotel**

<http://www.hilton.co.uk/cardiff>  
Kingsway, Cardiff, CF10 3HH  
Telephone: +44 (0)29 2064 6300  
Fax: +44 (0)29 2064 6350  
Email: [reservations.cardiff@hilton.com](mailto:reservations.cardiff@hilton.com)

**Mercure Holland House Hotel**

<http://www.mercure.com/gb/hotel-6622-mercure-cardiff-hollandhouse-hotel-and-spa/index.shtml>  
24-26 Newport Road, Cardiff, CF24 0DD  
Telephone: +44(0)29 2043 5000  
Fax: +44(0)29 20488894

**Cardiff Marriott Hotel**

<http://www.marriott.co.uk/hotels/travel/cwldt-cardiff-marriotthotel>  
Mill Lane, Cardiff, CF10 1EZ  
Telephone: +44 (0)29 2039 9944  
Fax: +44(0)29 2039 5578

**The Parc Hotel**

<http://www.thistlehotels.com/>  
Park Place, Cardiff, CF10 3UD  
Telephone: +44 (0) 871 376 9011  
Fax: 44(0) 871 376 9111

**Angel Hotel Hotel**

<http://www.barcelohotels.co.uk/hotels/wales/barcelo-cardiff-angel-hotel.com>  
Castle Street, Cardiff, CF10 1SZ  
Telephone: +44 (0)29 2064 9200  
Fax: +44 (0)29 2022 5980

**Holiday Inn City Centre Hotel**

<http://www.ichotelsgroup.com/h/d/hi/1/en/hotel/cdfcy>

Castle Street, Cardiff, CF10 1XD

Telephone: +44 (0)29 2034 7206

Fax: +44 (0)29 2038 9255

**Park Plaza Cardiff Hotel**

<http://www.parkplaza.com/cardiffuk>

Greyfriars Road, Cardiff CF10 3AL

Telephone: +44 (0) 2920 111 111

Fax: +44 (0) 2920 111 112

**The Lodge Hotel**

<http://www.mercure.com/gb/hotel-6623-mercure-cardiff-lodgehotel/index.shtml>

Wharf Road East, Tyndall Street, Cardiff, CF10 4BB

Telephone: +44(0)29 2089 4000

Fax +44(0)29 2049 3695

**The Big Sleep Hotel**

<http://www.thebigsleephotel.com/home.asp?hotelid=1>

Bute Terrace, Cardiff, CF10 2FE

Telephone: +44(0)29 20636 363

**Park Inn Hotel Hotel**

<http://www.cardiffcity.parkinn.co.uk/>

Mary Ann Street, Cardiff, CF10 2JH

Telephone: +44 (0)29 2034 1441

Fax: +44 (0)29 2072 7025

Email: [info.cardiffcity@rezidorparkinn.com](mailto:info.cardiffcity@rezidorparkinn.com)

**Travel Lodge**

[http://www.travelodge.co.uk/search\\_and\\_book/hotel\\_overview.php?hotel\\_id=81](http://www.travelodge.co.uk/search_and_book/hotel_overview.php?hotel_id=81)

St Mary Street, Cardiff

Telephone +44(0)29 2039 8697

**Ibis Hotel Cardiff City Centre**

<http://www.ibishotel.com/gb/hotel-2936-ibis-cardiff/index.shtml>

Churchill Way, Cardiff, CF10 2HA

Telephone: +44 (0)292064 9250

Fax: +44 (0)29 2064 9260

Email: [H2936-GMaccor-hotels.com](mailto:H2936-GMaccor-hotels.com)

# WMM '14 Registration Form

I plan to attend the Workshop „Magnetism and Metallurgy“ 2014 to be held at Julian Hodge Building, Cardiff University, Colum Drive, Cardiff, Wales, CF10 3EU, June 17 to June 19, 2014

Title \_\_\_\_\_ First Name \_\_\_\_\_ Last Name \_\_\_\_\_

Accompanying person \_\_\_\_\_ Extra conference dinner yes / no \_\_\_\_\_

Organisation/University \_\_\_\_\_

Address \_\_\_\_\_

tel \_\_\_\_\_ fax \_\_\_\_\_ email \_\_\_\_\_

**The early registration fee of £400 is payable, increased with £50 for an additional conference dinner (please mention the name of the accompanying person).**

**You will be invoiced for the correct amount upon receipt of this form.**

|  |
|--|
| <p><b>Please note: The registration desk at the conference location will be opened</b><br/>on 17.06.14 from 11.30 to 18.00 h and<br/>on 18.06 and 19.06.12 from 07.30 to 11.00 h</p> |
|--|

**Please complete this form and return to the secretary's office of the WMM'14**

Mr Alastair Stewart  
57 The Philog  
Cardiff  
CF14 1DZ  
United Kingdom

Tel: +44 (0)2920 626643  
Fax: +44 (0)2920 626643  
(please call before faxing)  
Email: wmm14@cardiff.ac.uk

# WMM'14

# Poster Application Form

I wish to present a poster at the International Conference „Magnetism and Metallurgy“ to be held at Julian Hodge Building, Cardiff University, Colum Drive, Cardiff, Wales, CF10 3EU, June 17 to June 19, 2014

Title \_\_\_\_\_ First Name \_\_\_\_\_ Last Name \_\_\_\_\_

Organisation/University \_\_\_\_\_

Address \_\_\_\_\_

tel \_\_\_\_\_ fax \_\_\_\_\_ email \_\_\_\_\_

**Title of the Poster (free of charge, restricted number):**

**Abstract (up to 200 words):**

**Please complete this form and return to the secretary's office of the WMM'14**

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(please call before faxing)

Email: [wmm14@cardiff.ac.uk](mailto:wmm14@cardiff.ac.uk)

# WMM'14

# Exhibition Application Form

I wish to present an exhibition at the International Conference "Magnetism and Metallurgy" to be held at Julian Hodge Building, Cardiff University, Colum Drive, Cardiff, Wales, CF10 3EU, June 17 to June 19, 2014

Title \_\_\_\_\_ First Name \_\_\_\_\_ Last Name \_\_\_\_\_

Organisation/University \_\_\_\_\_

Address \_\_\_\_\_

tel \_\_\_\_\_ fax \_\_\_\_\_ email \_\_\_\_\_

**Subject of the Exhibition:**

**Payment:**

The exhibitors (presentation of equipment, measuring devices or special materials) will pay a total sum of £600, including the conference early registration fee of £400, see **Registration Form**, and a special fee for the exhibition of £200

**The total sum of £600 is payable,**

**You will be invoiced for the correct amount upon receipt of this form.**

**Please complete this form and return to the secretary's office of the WMM'14**

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Email: [wmm14@cardiff.ac.uk](mailto:wmm14@cardiff.ac.uk)