

Programme Overview

The conference topics covers lightweight materials such as Aluminum, Magnesium and Titanium, their processing as well as their specific technology and property features, which are involved in their use in modern transport systems and structural lightweight applications.

LightMAT 2019 gives a deep insight into the basics, the specific requirements, how they can be met by each of the three modern light-weight materials, individually or in their combination in advanced multi-material design, including processing, joining and corrosion issues. Additionally, specific enabling technologies such as additive manufacturing and advanced light metal forming will be highlighted.

Plenary, Lectures and Poster presentations cover the following topics:

- A Processing**
- AM Additive Manufacturing**
- B Applications and performance**
- C Alloy Development**
- D Joining, Repair, and Multi-material designs**
- E Characterization and testing**
- F Computational materials design and engineering**
- LF Light Metal Forming (Special Topic)**

Light Metal Forming

Forming is an essential enabling technology for light metals, critical to their use in automotive, aerospace, and other advanced applications. The special topic Light Metal Forming will focus on recent scientific developments in understanding the role of microstructure and texture on the forming performance of aluminium, titanium, and magnesium. New emerging forming technologies will be highlighted that enable flexible shaping of complex parts. The synergies between forming and microstructure development will be explored, offering new avenues to create low cost and high performance formed light metal parts.

General Information

Venue
Manchester Conference Centre
Sackville Street
Manchester
M1 3BB (Great Britain)
<https://manchesterconferencecentre.com>

Conference office
INVENTUM GmbH
Thorsten Weber
Marie-Curie-Straße 11- 17
53757 Sankt Augustin (Germany)
Phone +49 151 705 414 60
lightmat@dgm.de

Conference Fees

Young Researchers up to 30 years	
DGM-members*	250 EUR
Non-members	295 EUR
Expert Researchers 31 - 40 years	
DGM-members*	450 EUR
Non-members	545 EUR
Professionals University	
DGM-members*	600 EUR
Non-members	695 EUR
Industry	
DGM-members*	800 EUR
Non-members	895 EUR

* Deutsche Gesellschaft für Materialkunde e.V. (DGM)
(German Materials Society)
Benefit from a DGM-Membership!
www.dgm.de

The congress fee is VAT-exempt according to §4, Ziffer 22 UStG. The catering package contained to the congress fee includes 19% VAT.

Aluminium, Magnesium, Titanium
Moving the World

LightMAT

3rd Conference & Exhibition on
Light Materials – Science and
Technology

5th-7th November 2019
Manchester, Great Britain

CALL FOR ABSTRACTS
DEADLINE
15.03.2019
lightmat2019.dgm.de



lightmat2019.dgm.de

DGM

The Scope

Do you want to know how Aluminium, Magnesium or Titanium can deliver your lightweight design?

The 3rd International Conference on Light Materials – Science and Technology (LightMAT 2019) gives a comprehensive overview and new insight into the three most important light metals Aluminium, Magnesium and Titanium and their combinations.

LightMAT 2019 gives a deep insight into the fundamentals and the specific requirements that apply to each of the three lightweight materials. The materials are viewed individually or in combination in multi-material designs, including the aspects of processing, joining and corrosion protection. In addition, LightMAT 2019 will focus on the advances in formability and novel forming technologies enabling light alloys to be shaped into complex components.

Additional sessions are organized beyond single metals and address common processes and main applications, intended to provide comparison and cross fertilization, giving a wide overview of individual advances, challenges and highlights, covering:

- Conventional and advanced light weight applications and products in automotive, aerospace and other relevant transport and lightweight applications.
- Fundamental aspects of the three metallic lightweight materials and their alloys, their processing and (physical) metallurgy issues involved.
- Microstructure evolution, related properties and advanced simulation
- Industrial fabrication, processing, joining and corrosion protection issues
- Additive manufacturing of metallic structures enabling novel lightweight designs
- Formability and advanced forming of light alloys to shape complex parts

LightMAT 2019 addresses industry as well as academia and intends to strengthen the link between the two. Furthermore, the conference promotes the participation and the networking of young engineers, scientists and students.

The conference is being held in Manchester, the world's first industrial city, birthplace of the railway and computer, and hub for UK materials research.

Conference Chairs



Prof. Joseph Robson
The University of Manchester
United Kingdom



Prof. Philip Prangnell
The University of Manchester
United Kingdom



Dr Martin Jackson
The University of Sheffield
United Kingdom



Dr Axel von Hehl
Leibniz Institute for Materials Engineering – IWT
Germany

Plenary Speakers

Prof. M. Alexis Deschamps
Université Grenoble Alpes, France

Dr Jody Hayes
Mercedes AMG High Performance Powertrains Ltd, United Kingdom

Dr Henry Holroyd
Luxfer, United Kingdom

Dr Blanka Lenczowski
Airbus, Germany

Prof. Dr.-Ing. Christoph Leyens
Technische Universität Dresden, Germany

Dr Teresa Perez-Prado
IMDEA, Spain

Prof. David Rugg
Rolls Royce, United Kingdom

Programme Committee

A Processing

- Dr Jun Jiang**
Imperial College London, United Kingdom
- Dr Thomas Seefeld**
Bremer Institut für angewandte Strahltechnik GmbH, Germany

AM Additive Manufacturing

- Dr Martin Jackson**
University of Sheffield, United Kingdom

B Applications and performance

- Prof Philip Prangnell**
University of Manchester
- Dr Axel von Hehl**
IWT Stiftung Institut für Werkstofftechnik

C Alloy Development

- Dr Simon Hogg**
Loughborough University
- Carsten Siemens**
Technische Universität Braunschweig, Germany

D Joining, Repair, and Multi-material designs

- Dr Hugh Shercliff**
University of Cambridge, United Kingdom
- Dr Axel von Hehl**
IWT Stiftung Institut für Werkstofftechnik

E Characterization and testing

- Dr Timothy Burnett**
The University of Manchester, United Kingdom
- Dr. Norbert Hort**
Helmholtz-Zentrum Geesthacht, Germany

F Computational materials design and engineering

- Dr Pratheek Shanthraj**
University of Manchester, United Kingdom
- Dr Axel von Hehl**
IWT Stiftung Institut für Werkstofftechnik

LF Light Metal Forming (Special Topic)

- Dr João Quinta da Fonseca**, University of Manchester, United Kingdom

Call for Abstracts

The organisers invite prospective authors to submit an abstract related to the conference topics. Abstracts should not exceed 2300 characters in length and should be submitted through the conference website: <https://lightmat2019.dgm.de>

Please indicate whether an oral presentation or a poster is preferred. Early career scientists are especially welcome to actively contribute to the conference by submitting a contribution.

The abstracts will be evaluated in **April - May 2019**, and if accepted, the authors will be informed about the kind of presentation (oral or poster).

Key dates and deadlines

Call for abstracts opens:	December 2018
Call for abstracts closes:	15th March 2019
Confirmation to authors	April/May 2019
Preliminary programme	June 2019
LightMAT 2019:	5 th -7 th November 2019

International Advisory Board

<https://lightmat2019.dgm.de/international-advisory-board>

Industrial Exhibition

The exhibition accompanying the conference will take place in the direct conference and poster area.

Price per m² 195 EUR + 19% VAT

This includes:

- Exhibition area
- Publication of your company logo on the conference website
- Publication of your company logo and company profile (max. 1,000 characters) in the programme brochure and on the conference website
- One exhibitor pass which is also valid to visit the scientific programme.

Electricity, additional technical support, furnishing and/or catering are available on request (to be charged!). Placing will be done by order of registrations determined upon a first-come, first-served registration basis.

Sponsoring & Advertisement

In 2017 LightMAT welcomed over 200 experts from over 20 countries. In total, more than a quarter of the participants came from the global industry, almost three quarters from international public institutions.

Use LightMAT 2019 to reach your lightweight target group in a specific way. We can offer you the following sponsoring and advertising opportunities:

Your company logo printed on the

Conference Lanyards	1.000 EUR
Conference name badges	500 EUR

Your company provides the

Conference bags	1.000 EUR
Writing pads	500 EUR
Pens	500 EUR

Advertising Material

Flyers/brochures in the conference bag	400 EUR
Flyers/brochures at the check-in	200 EUR

Advertisement in the program booklet

Back cover (U4)	800 EUR
Inside front cover (U2)	700 EUR
Inside back cover (U3)	600 EUR
Regular page inside	500 EUR

Poster Exhibition 500 EUR

Your company logo on every poster number label and a roll up of your company placed in the poster area

Conference Dinner 750 EUR

Your company logo on the menu card and flyer of your company on every table.

In addition, each sponsor is listed on the website with its logo, company profile (short text with 1,000 characters), web link and contact details. The logo will be included in the program. The LightMAT 2017 programme can be viewed here:

<https://bit.ly/2OYNGgP>

All fees are in EUR-currency and do not include 19% VAT.