



Welcome to CMBBE 2021

It is our great pleasure to invite you to the **17th International Symposium on Computer Methods in Biomechanics and Biomedical Engineering and the 5th Conference on Imaging and Visualization** taking place **7 – 9 September in Bonn, Germany!**

The symposium will include plenary lectures by renowned international speakers, workshops and special sessions, free paper presentations, industry workshops. CMBBE 2021 will bring together established researchers and international key speakers, offering top-level, state of the art knowledge and networking opportunities in the field of biomechanics and biomedical engineering. There will be many opportunities to network and connect with new and older colleagues and friends.

The first CMBBE symposium took place in 1992 in Swansea and was organised by Prof. John Middleton. Since then the symposium has become a well-established event, known within the computer methods in the biomedical engineering community as a great platform to stay informed about new developments, make new connections and stay in touch with fellow researchers in the field!

We hope that the global situation will improve and we will see everyone in Bonn in September 2021! However, we will carefully monitor the situation and will also consider a hybrid or virtual option. We believe that the participants will enjoy the excellent scientific programme we are preparing!

Conference Chairs

Conference Chair: Christoph Bourauel, University of Bonn, Germany

Conference co-chair: Liesbet Geris, KU Leuven and University of Liege, Belgium

Conference co-chair: Jos Vander Sloten, KU Leuven, Belgium

Co-Chair (Imaging & Visualization): João Manuel R.S. Tavares, University of Porto, Portugal





About CMBBE Symposium

The CMBBE 2021 Symposium is aimed at exchanging knowledge among engineers, scientists, clinicians, and industry regarding the latest developments and innovations in computational biomechanics and biomedical engineering.

The CMBBE 2021 will include plenary sessions, special sessions, oral and poster presentations, as well as industry workshops.

What to expect from CMBBE?

- Receive an overview of current research and development trends in academia concerning a spectrum of knowledge and technologies in the field.
- Receive an overview of current trends in commercialized technology as well as of needs and technological gaps identified by the industry.
- Opportunities for commercialization of inventions and technologies which are still at the research lab phase.
- It is an appropriate environment for informal discussions that encourages follow-up contacts between scientists and companies such as for the development of technologies, consultation projects for companies etc.

Previous CMBBE Symposia

1 st	5 – 7 May	1992	SWANSEA
2 nd	21 – 24 Sept	1994	SWANSEA
3 rd	7 – 10 May	1997	Barcelona
4 th	13 – 16 Oct	1999	Lisbon
5 th	31 Oct – 3 Nov	2001	Rome
6 th	25 – 28 Feb	2004	Madrid
7 th	22 – 25 March	2006	Antibes, France
8 th	27 Feb – 1 March	2008	Porto
9 th	24 – 27 Feb	2010	Valencia
10 th	11 – 14 April	2012	Berlin
11 th	3 – 6 April	2013	Utah
12 th	13 – 15 Oct	2014	Amsterdam
13 th	1 – 5 Sept	2015	Montreal
14 th	20 – 22 Sept	2016	Tel Aviv, Israel
15 th	26 – 29 March	2018	Lisbon
16 th	14 – 16 August	2019	New York



CMBBE Symposium Secretariat

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Contact: Adina Markova
(programme, exhibition),

Karolina Kardaczova (registration)



Conference venue:

Hilton Hotel Bonn

Berliner Freiheit 2

53111 Bonn, Germany

CITY OF BONN

The Bonn region is regarded as the gateway to the romantic Rhine with the Siebengebirge mountains and Drachenfels shrouded in legend. The federal city Bonn is, like Koblenz, situated at the border of the river Rhine. It is in the federal state North-Rhine Westphalia. With about 325 thousand inhabitants it is one of the 20 largest cities in Germany.

Bonn is also known as the native town of Ludwig van Beethoven, a famous musician and composer. The Beethoven House, the house where the musician was born, is now a museum and tells stories from the life of the world-famous composer. After the second world war, Bonn became the provisional capital of Germany. This temporary arrangement lasted 41 years. Many Baroque buildings date back to the time when Bonn was the place of residence of the Electors.





CMBBE 2021 will focus on four main areas:

- **Artificial Intelligence and Big Data**
- **Epidemiology**
- **Bacterial biomechanics**
- **Image processing toward more realistic patient-specific biomechanical modelling and device design**

Abstracts submissions in all fields of computer methods in biomechanics and biomedical engineering will be accepted.

3D printing in biomedicine
Agent-based modelling
Artificial Intelligence and big data
Bacterial and viral mechanics
Biomaterials
Biomechanics of morphogenesis
Biomechanics of movement and rehabilitation
Biomedical image analysis & processing
Biomedical visualization
Bone biomechanics
Brain biomechanics
Cardiac mechanics
Cardiovascular fluid dynamics
Cellular and molecular biomechanics
Computer-aided surgery
Contact mechanics
Dental biomechanics
Diarthrodial joint biomechanics
Epidemiology
Ergonomics
Finite element and finite volume method
Fluid biomechanics
Fluid-structure interaction
Growth and remodelling
Hard tissue mechanics, damage, remodelling

Human modelling for robotics
Imaging for model validation
Implants/orthotics/prosthetics/devices/biologics
In vivo imaging and visualization
Injury biomechanics and crash analysis
Inverse problems and parameter identification
Machine learning
Mechanics in infectious diseases
Mechanobiology
Meshless methods
Multiphysics modelling
Multiscale modelling
Musculoskeletal dynamics and neuromuscular control
Patient-specific modelling
Plant biomechanics
Reproductive biomechanics
Respiratory biomechanics
Skin biomechanics
Soft tissue mechanics, damage, remodelling
Spine biomechanics
Sports biomechanics
Tissue engineering
Vascular mechanics



CMBBE 2021 Key Dates



CMBBE 2021 Partners





Sponsorship & exhibitor mission

CMBBE Symposium is a platform for networking and cooperation for industry and academics. We plan to maximize this experience by introducing the virtual connectivity and allow our participants to interact with industry also via the conference app during as well as post-conference. We plan to reduce printing and any unnecessary waste, therefore almost all conference materials will be available in electronic version. We will encourage our industry partners and delegates to take the same stand.

Why exhibit at CMBBE 2021?

- Target new clients and launch new products.
- Promote your company image & build your brand.
- Ample networking opportunities with direct access to key leaders
- Establish strategic partnerships
- Demonstrate innovative products
- Build opportunities with existing clients
- Support ongoing education and research in the field
- Promote your company / organisation as a leading supporter of biomechanics and biomedical engineering

The majority of attendees are expected to come from Europe, but also the rest of the world including the United States, Middle East, Asia, Central and South America.

Expected number of participants: 300 - 400.

REGISTRATION FEES

	Early registration fee	Late registration fee
Delegate fee	650 EUR	700 EUR
Student fee	450 EUR	500 EUR
Conference dinner	50 EUR	50 EUR



SPONSORSHIP AND EXHIBITION OPPORTUNITIES

Exhibition Package 2,500 EUR

- Company flyers insert in the delegates' conference bags
- Company logo and link on the conference website
- Email blast to registered delegates
- 1 free delegate
- Exhibition space – 4 sqm
- Virtual profile in the conference app

Workshop 2,500 EUR

- Includes a time slot in the symposium programme
- Email blast to registered delegates

Exhibition package including workshop 4,000 EUR

- Exhibition space 4 sqm
- Company logo and link on the conference website
- Email blast to registered delegates
- 1 x Company workshop
- Full page advert in the printed programme
- 1 free delegate
- Virtual profile in the conference app

Exhibition area:

The exhibition is located right next to the plenary hall. Lunch and coffee breaks will be held in the exhibition area to increase the networking opportunities among delegates and with the industry.

BRANDING OPPORTUNITIES @ CMBBE 2021

- | | |
|---|------------------|
| ▪ USB stick of the final programme | 2,000 EUR |
| ▪ Conference bags | 2,000 EUR |
| ▪ Pens & notepads | 1,000 EUR |
| ▪ Lanyards | 1,000 EUR |

The conference bags, the USB programme and the pens & notepads will be handed out to all participants and provide a high level of exposure for your company. You can design the notepads and pens with your company logo.

The production of the promotional items is the responsibility of the sponsoring company (unless agreed otherwise) and it is not included in the sponsorship.



SCIENTIFIC AWARDS SPONSORSHIPS

Best Scientific Paper and Presentation	700 EUR
Best Presentation in Imaging and Visualization	700 EUR
Student travel grants	500 EUR

The logo of the sponsoring companies will be included in the final programme and on the conference website, as sponsors of the scientific awards. A representative of the company will be invited to hand over the awards together with the chair of the conference.

IT / Technical Services:

- **CMBBE 2021 app & virtual platform** **2,000 EUR**

CMBBE 2021 App will be available for all participants to access information about scientific programme, exhibition, abstracts and special sessions. You can make your logo visible right at the start of the App and be present for a couple of seconds every time a participant starts the CMBBE 2021 App.

- **AV sponsorship** **2,000 EUR**

You will have a slide in between the sessions on the screens in all breakout rooms and in the plenary hall. You can choose the content of your slide whether its company logo and short description or product you would like to promote.

Social events sponsorships:

- **Welcome reception 7th September** **on request**
- **Conference dinner 8th September** **on request**

The sponsoring company can have roll-up posters displayed during the social event and their contribution will be made mentioned on the conference website, in the printed final programme and in the opening ceremony of the symposium.

Advert in the final programme

- Full page A4 inside the programme 500 EUR
- Full page A4 inside back cover 1000 EUR
- Full page A4 back cover 2000 EUR

Insert in the conference bag 500 EUR