Conference Venue

The conference will take place at the premises of TU Wien, which is located in close vicinity to the city center of Vienna. The conference venue can be easily reached by public transport (metro lines U1, U2, and U4, tram lines 1, 2, D, 37, 38, 40, 41, 42, 43, and 44), and also from the Vienna International Airport (VIE), which provides direct flights to and from around 200 destinations worldwide.

Main Building, TU Wien
© Matthias Heisler

Cupola hall at TU Wien, serving as main lecture room © TU Wien

Registration Fees

Early registration fees are applicable if payment is received not later than June 2, 2023.

	Early	Late
Delegates excl. banquet	€ 630	€ 720
Delegates incl. banquet	€ 680	€ 770
Students excl. banquet	€ 430	€ 520
Students incl. banquet	€ 480	€ 570
Accompanying person	€ 120	€ 120

All delegate and student fees cover the printed programme, book of abstracts (electronic), attendance of all scientific sessions and exhibitions, coffee breaks, lunches, and the welcome cocktail. Please note that attending the conference banquet requires payment of respectively adjusted registration fees (as pointed out above).

The accompanying person's fee includes participation at the welcome cocktail and the conference banquet.

Important Dates

Deadline for abstract submission	March 31, 2023
Acceptance of abstracts	May 19, 2023
Deadline for early registration	June 02, 2023
Deadline for registration of presenters	June 23, 2023

Social Programme

A welcome reception will be offered on Wednesday, September 20. A banquet, given by the Mayor of the City of Vienna, will take place on Thursday, September 21.

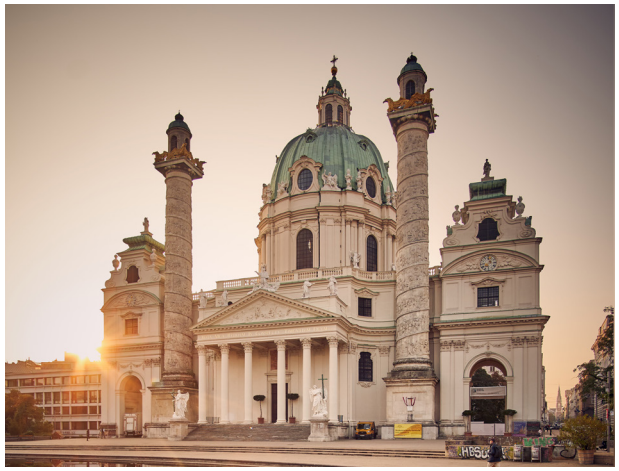
Accommodation

Block reservations at hotels in the near vicinity of the conference venue at preference rates are arranged by the organizers. Detailed information is available on the conference webpage.

Conference Secretariat

For any questions related to the organization of the conference, please contact the ICCB 2023 conference secretariat:

Technische Universität Wien
Institute for Mechanics of Materials and Structures
Karlsplatz 13/202
A-1040 Vienna, Austria
Email: iccb2023@tuwien.ac.at
Phone: (+43 1) 588 01-20211



St. Charles Church © Maximilian Autengruber

ICCB 2023

X International Conference on Computational Bioengineering

September 20-22, 2023
Vienna, Austria

https://iccb2023.conf.tuwien.ac.at

Scope and Invitation

The International Conference on Computational Bioengineering (ICCB) series started in 2003, with the inaugural event taking place in Zaragoza. This, as well as the subsequently following conferences - consistently organized at culturally and historically rich, as well as scientifically and technologically highly relevant places, namely in Lisbon (in 2005), on the Island of Margarita (in 2007), in Bertinoro (in 2009), in Leuven (in 2013), in Barcelona (in 2015), in Compiegne (in 2017), in Belgrade (in 2019), and again in Lisbon (in 2022) - regularly attracted a considerable number of world-class experts.

We are proud and happy to announce that Vienna has been selected to host the tenth edition of the ICCB; it will take place from September 20 to 22, 2023, on the premises of the TU Wien (Vienna University of Technology), within only a few minutes of walking distance to many of the city's world-famous attractions. Hence, the ICCB 2023 not only promises to become an inspiring and stimulating scientific event, but will also allow for an unforgettable cultural experience in the beautiful city of Vienna.

The conference will cover all fields embedded in the realm of computational bioengineering. The local organizing committee kindly invites potential conference attendees to submit an abstract.

We are genuinely looking forward to welcoming you in Vienna in September 2023!

Conference Topics

Biomaterials, Tissue and Cell Engineering
Biomechanics
Biomedical Decision-Support Systems
Biomedical Imaging and Visualization
Cardiovascular Engineering
Computational Biology and Chemistry
Mechanobiology
Molecular Dynamics, Dissipative Particle Dynamics
Multiscale and Multiphysics Modelling
Musculoskeletal Systems
Nanomedicine and Microfluidics
Neural Engineering
Patient-Specific Modelling
Population-Based Modelling
Signal Processing and Data Mining in Medicine
Sports Bioengineering

Mini-Symposia

See outlines of the mini-symposia and contact details of the organizers on the conference webpage.

MS01: Multi-scale mechanics and mechanobiology of arteries Stéphane Avril & Claire Morin
MS02: Effect of biophysical stresses on blood and vascular cells Abdul Barakat & Christian Wagner
MS03: Modeling bone's response to mechanical signals Peter Augat & Sandra Shefelbine
MS04: Computational biomechanics in orthopedics Dieter H. Pahr & Andreas G. Reisinger
MS05: Reproductive soft tissue biomechanics Elisabete Silva, Dulce Oliveira & Renato Natal
MS06: Computational approaches to cardiovascular medicine Francesco Moscato & Gernot Plank
MS07: Computational methods for tissue engineering André Castro, Rui Ruben, Pasquale Vena & Sara Checa
MS08: Biomechanical modelling by coupling mechanics, biology and chemistry Michele Marino, Alessio Gizzi & Giuseppe Vairo
MS09: Collective mechanics of cellular scale processes Sebastian Fürthauer
MS10: Multiscale assessment of bone remodeling and adaptation using novel experimental and computational methods Peter Pivonka, David Thomas & David Cooper
MS11: Corneal biomechanics Jean-Marc Allain
MS12: Additive manufacturing in the hospital setting: challenges, obstacles, and outlook Emir Benca & Francesco Moscato
MS13: Cell-based models in mechanobiology Bart Smeets & Paul Van Liedekerke
MS14: Inverse modeling and uncertainty quantification in biomechanics Ankush Aggarwal & John C Brigham
MS15: Integrating machine learning and multiscale modeling - advances, challenges and future possibilities Tijana Geroski & Nenad Filipović
MS16: Molecular biomechanics Dinesh Katti & Kalpana Katti
MS17: Multi-scale modelling of biomechanical systems and their simulation using neural networks Alf Gerisch & Raimondo Penta
MS18: Mechanical characterization of biological and bio-inspired materials Ange-Therese Akono
MS19: Computational cancer mechanobiology José Manuel García Aznar, Eoin McEvoy & María Angeles Pérez Ansón
MS20: Multiscale modelling of flows and transport in tissues Eduard Rohan, Thibault Lemaire
MS21: Bioinspired self-healing structural materials Nima Rahbar
MS22: Continuum biomechanics of active biological systems Tim Ricken, Oliver Röhrle

Call for Abstracts

Prospective authors are kindly invited to submit an abstract (plain text, not less than 400, but not more than 500 words) related to the conference topics or to a mini-symposium through the conference online system by March 31, 2023.

Plenary Keynote Speakers

Taiji ADACHI (Kyoto University, Japan)
Abdul BARAKAT (École Polytechnique, France)
José Manuel GARCÍA AZNAR (University of Zaragoza, Spain)
Kalpana KATTI (North Dakota State University, USA)
Svetlana KOMAROVA (McGill University, Canada)
Ralph MÜLLER (ETH Zurich, Switzerland)
Peter PIVONKA (Queensland University of Technology, Australia)

Organizing Institution

The conference is organized by the Institute for Mechanics of Materials and Structures, which is part of the Faculty of Civil and Environmental Engineering of the TU Wien (Technische Universität Wien / Vienna University of Technology), Austria.

Chairmen

Christian HELLMICH (TU Wien, Austria)
Stefan SCHEINER (TU Wien, Austria)

International Steering Committee

Miguel CERROLAZA (Universitat Politècnica de Catalunya, Spain)
Manuel DOBLARÉ (University of Zaragoza, Spain)
Paulo FERNANDES (University of Lisbon, Portugal)
Nenad FILIPOVIC (University of Kragujevac, Serbia)
João FOLGADO (University of Lisbon, Portugal)
Marie Christine HO BA THO (University of Compiegne, France)
Sergio OLLER (Universitat Politècnica de Catalunya, Spain)
Helder RODRIGUES (University of Lisbon, Portugal)
Harry VAN LENTHE (KU Leuven, Belgium)
Marco VICECONTI (University of Bologna, Italy)