



CONFERENCE VENUE

The Conference will take place in beautiful spring time in Riga, a beautiful European capital located on the coast of Baltic Sea. The city has retained many ancient features in its architecture and culture. It is surrounded by vast sandy beaches, pine forests, and rural landscapes. The weather in May is usually dry and sunny, with daytime temperatures of 17-22°C (63-72°F). This is the top period of park and garden blossoming. Besides the sightseeing in the Old Riga with its historic cathedrals, memorials, and museums, the conference participants will be able to enjoy a variety of cultural events at the Dome cathedral, Opera House, numerous concert halls, and theatres. Special tours for accompanying persons will be available. Riga offers several four- and three-star hotels with excellent restaurants, bars, and night entertainment events featuring the traditional Latvian culture. You will have a unique opportunity to taste the delicious and, at the same time, reasonably priced Latvian cuisine.

REGISTRATION FEES

Before March 1, 2014 — 400 EUR.

After March 1, 2014 — 450 EUR.

On site — 550 EUR.

Students (a copy of valid certificate should be send together with payment) and accompanying persons — 200 EUR. Registration fee for students on site 250 EUR

The registration fee includes the book and CD of conference abstracts, coffee breaks, reception, lunches, and conference dinner.

REGISTRATION FORM

Please find at the Conference website:

<http://www.pmi.lv/New/EnConferenceAbout.html>

CONFERENCE CHAIRMAN:

V. Tamuzs, Institute of Polymer Mechanics,
University of Latvia, Latvia

CHAIRMAN OF LOCAL ORGANIZING
COMMITTEE:

E. Plūme, Institute of Polymer Mechanics,
University of Latvia, Latvia

CONFERENCE SCIENTIFIC SECRETARY:

K. Cirule, Institute of Polymer Mechanics,
University of Latvia
23 Aizkraukles St., Riga, LV 1006, Latvia
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IMPORTANT DATES

Dec. 1, 2013 — Submission of one-page Abstracts (preferably together with full papers)

Feb. 1, 2014 — Notification of Acceptance to be sent to Authors

March 1, 2014 — Submission of Full Texts of Papers

SCIENTIFIC PROGRAM will include invited plenary papers and session and poster contributions.

OFFICIAL LANGUAGE of the Conference will be English.

MCM - 2014

XVIII INTERNATIONAL CONFERENCE ON MECHANICS OF COMPOSITE MATERIALS

Devoted to the 50 Anniversary of
the Institute of Polymer Mechanics,
University of Latvia
June 2 - June 6, 2014, Riga, Latvia



ORGANIZING LATVIAN INSTITUTIONS

- Institute of Polymer Mechanics
- Latvian Academy of Sciences
- Latvian Council of Science
- Latvian National Committee for Mechanics
- University of Latvia
- Riga Technical University
- Journal *Mechanics of Composite Materials*
- Scientific Enterprise *Lakomp*
- Centre Composite

**First Circular Announcement
and Call for Papers**

The present Conference follows the previous meetings in this series held in Riga from 1965 to 2012. The XVIII International Conference intends to keep the customary themes of discussion and will be devoted to the 50 anniversary of the Institute of Polymer Mechanic, University of Latvia. Traditionally on the Riga conferences, the number of participants is approximately 250 from many countries. So, the conference offers a good opportunity to meet colleagues from all over the world. The meeting history is available on the Conference website.

SCIENTIFIC TOPICS

1. Structure and Properties of Constituents

- Properties of polymeric, metallic, and ceramic matrices
- Properties of fillers, nanoparticles, and organic and natural reinforcing fibers;
- Role of interface, measurements, and optimization

2. Time- and Environment-Dependent Properties and Durability

- Long-term properties, creep, and aging
- Environmental effects
- Prediction of long-term deformations

3. Strength, Fracture, Damage, and Fatigue

- Interaction and sequence of inter- and intralaminar damage and failure in composites
- Measurements of fracture toughness
- Delamination of laminates
- Fatigue under complex loading histories
- Prediction of fatigue lifetime and accelerated tests

4. Structures

- Methods of optimization of composite structures
- Sandwich structural and joint design
- Intelligent systems
- Active and passive control systems
- Damage monitoring in structures and seismic design

5. Composite Materials Application in Aeronautics and Space

- Properties of composite materials
- Finite element modeling (FEM)
- Production and maintenance aspects

6. Composites in Civil Engineering and Infrastructure

- Fiber-reinforced plastics for concrete structures
- Polymer composites for renovation of structures
- Polymers in concrete

7. Mechanical Aspects of Technology

- Resin infusion processes
- Flow of nonlinear polymer melts in porous media
- Recycling of advanced composites

8. Biomechanics

- Mechanics of biological tissues
- Mechanics of prosthesis of biological organs

Please, note that conference is not limited to the above topics. Ideas on other topics or special symposia, which you think are suitable for the conference, warmly welcome and can be forwarded to the organizing committee.

Key-note papers will be identified by the organizers from the submitted abstracts.

INSTRUCTIONS FOR AUTHORS

Abstract

The abstract should be self-contained and should provide an explicit overview of the full report, with a clear statement of the principal conclusions reached. It must be a "camera-ready" document of format A4 (210×297 mm). More detailed instructions and the abstract template please find at the Conference website <http://www.pmi.lv/New/EnConferenceAbout.html>. The abstract should be e-mailed to the Scientific Secretary of the Conference. The book of abstracts will be available at the conference opening.

Full Papers

The full papers having met the requirements of the journal *Mechanics of Composite Materials*, after careful reviewing, will be published in the bimonthly periodical in the order of their submission.

Oral presentation

The time allotted will be 40 min for plenary and key-note presentations and 20 min (with discussion included) for section papers.

Poster

Dimensions will be detailed in the 2nd Announcement.

Accommodations

Several classes of accommodation will be available close to the conference venue. Prices for accommodation will start from €50.

Social program

An accompanying persons program will be arranged based on the requests from participants.



We look forward to seeing you in Riga in June 2014 for MCM-2014!

*Prof. Vitauts Tamužs
Chairman, MCM-2014*