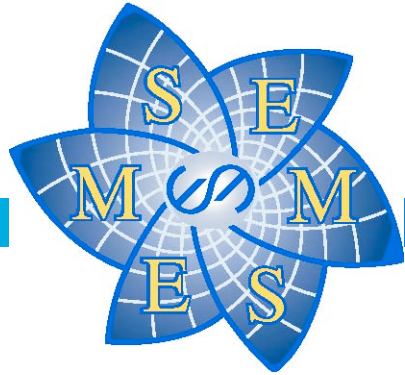**The European Mathematical Society**

THE EUROPEAN MATHEMATICAL SOCIETY
History, Organization and Activities
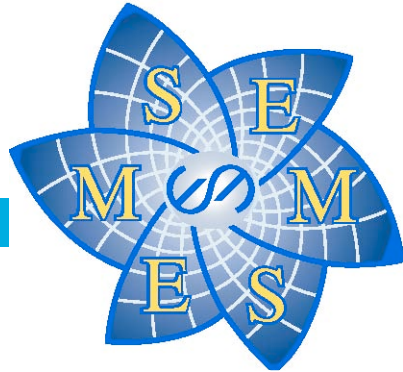
Marta Sanz-Solé
President
June 2013

The European Mathematical Society

What is the European Mathematical Society?

www.euro-math-soc.eu

The European Mathematical Society

The EMS is a learned society representing mathematicians throughout Europe

Aims

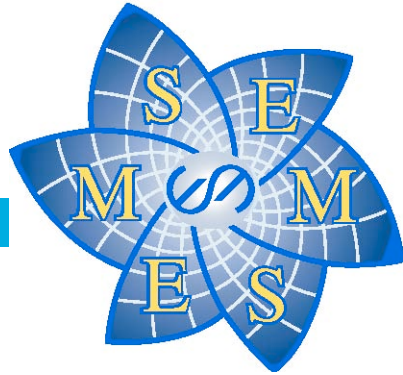To foster interaction between mathematicians of different countries

To promote mathematical research

To assist and advise on problems of mathematical education

To develop links between mathematics and society

To maintain a sense of identity amongst European mathematicians

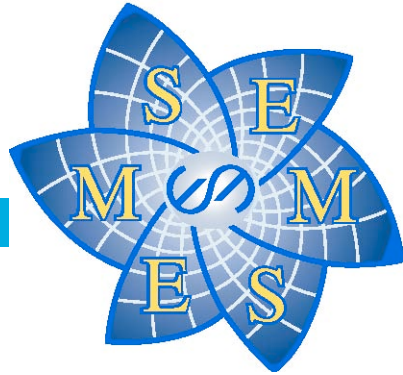To represent the mathematical community in European institutions

The European Mathematical Society

History

Discussions started at the ICM in Helsinki in 1978

The discussions were conducted within the *European Mathematical Council*, an initiative led by Sir Michael Atiyah

The EMS was founded in October 1990 in Mandralin (Poland)

The European Mathematical Society

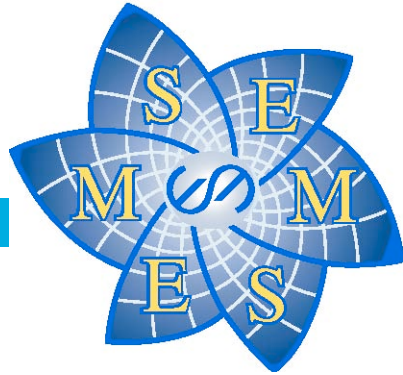| **Presidents of the EMS**	**Friedrich Hirzebruch** (1991-1994), Max Planck Institute Bonn, Germany
	Jean Pierre Bourguignon (1995-1998), IHÉS, France
	Rolf Jeltsch (1999-2002), ETH Zürich, Switzerland
	Sir John Kingman (2003-2006), U. of Bristol, UK
	Ari Laptev (2007-2010), Imperial College London, UK; KTH, Stockholm

The European Mathematical Society
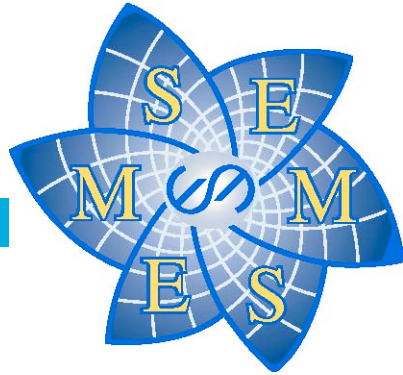
Membership

- About 60 mathematical societies in Europe
- International societies (ESMTB, GAMM)
- Academic institutional members (about 40 research centers and mathematics departments in Europe)
- About 3000 individual members

Reciprocity Agreements

- AMS, Australian Mathematical Society, Canadian Mathematical Society

Collaboration Agreements

- Bernoulli Society, IAMP, UMALCA, ECMI

The European Mathematical Society

Benefits of Membership
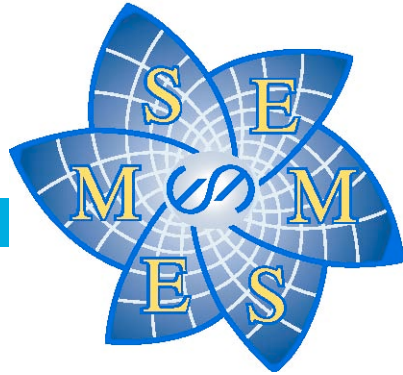
Those derived from reciprocity agreements

EMS Newsletter, quarterly journal

Discount on books and journals published by the EMS Publishing House

Free access to: Journal of the European Mathematical Society; Zentralblatt MATH

Discount on subscriptions to the Journal of the European Mathematical Society

Reduced registration fees for the ECMs and for some EMS co-sponsored meetings
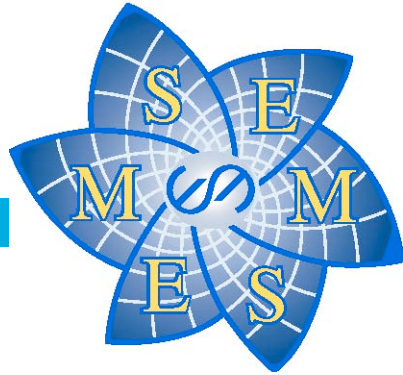
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Executive Committee (2013-2014)

- President: **Marta Sanz-Solé** (Spain)
- Vice President: **Franco Brezzi** (Italy)
- Vice President: **Martin Raussen** (Denmark)
- Secretary: **Stephen Huggett** (UK)
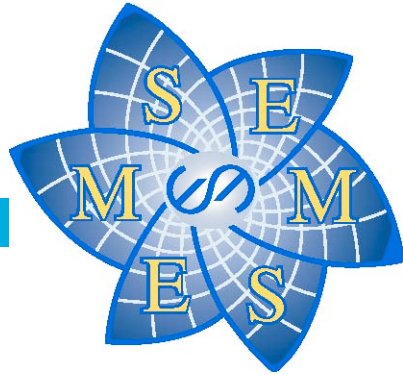- Treasurer: **Jouko Väänänen** (Finland)

Members

- Alice Fialowski (Hungary)
- Gert-Martin Greuel (Germany)
- Laurence Halpern (France)
- Volker Mehrmann (Germany)
- Armen Sergeev (Russia)

The European Mathematical Society

Contact with Members

The European Mathematical Society

The EMS Newsletter

Journal of record of the **EMS**

http://www.ems-ph.org/journals/journal.php?jrn=news

One of the most widely read mathematical periodicals in Europe dealing with matters of interest to the mathematical community

Contents

- Articles outlining current trends in scientific development
- Reports on member societies and institutional members
- Reports on EMS activities and EMS Committees
- Interviews
- Announcements of meetings and conferences
- Book reviews
- Specific columns: ICMI, Personal, Zentralblatt...
- Adds of products and services to mathematicians, statisticians, computer scientists, engineers, etc.
- ...

The European Mathematical Society

Editorial Team

Editor-in-Chief: Lucia Di Vizio (France)

Editors

- M. Bartolini-Bussi (Italy), J. Buescu (Portugal), E.-M. Feichtner (Germany), E. Miranda (Spain), M. Pacurar (Romania), U. Persson (Sweden), Zdislaw Pogoda (Poland), T. M. Rassias (Greece), D. Schleicher (Germany), E. Scholz (Germany), O. Teschke (Germany), J. Top (The Netherlands)
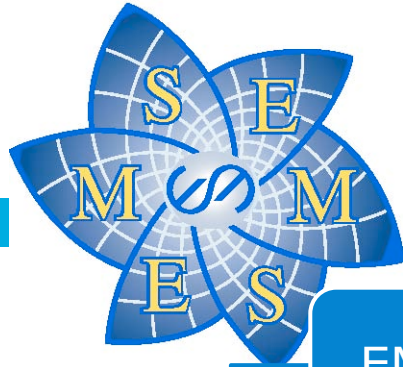
Copy Editor

- C. Nunn (UK)

Past Editors-in-Chief

- R. Wilson (UK), M. Raussen (Denmark), Vicente Muñoz (Spain)
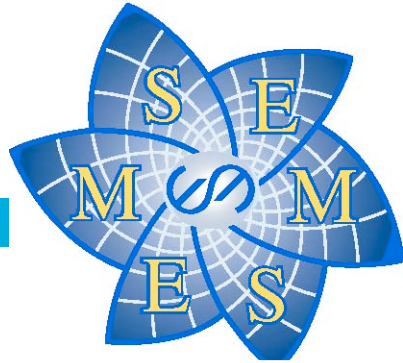
Free on-line access

The European Mathematical Society

EMS E-News

Editor: Mireille Chaleyat-Maurel (France)

Contents: Headlines; News from Societies; Calls for proposals; News from EMS Comittees

Free on-line access

The European Mathematical Society

Meetings of Presidents of EMS Member Societies

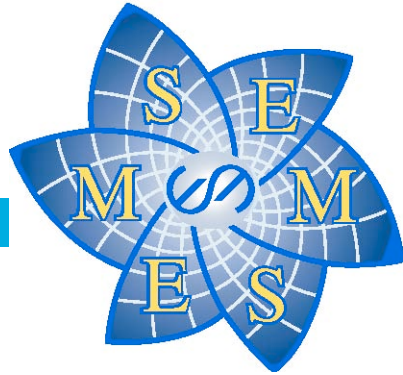CIRM, Luminy (France), April 26-27, 2008

Banach Center, Warsaw (Poland), May 9-10, 2009

Romanian Math. Society, Bucharest (Romania), April 17-18, 2010

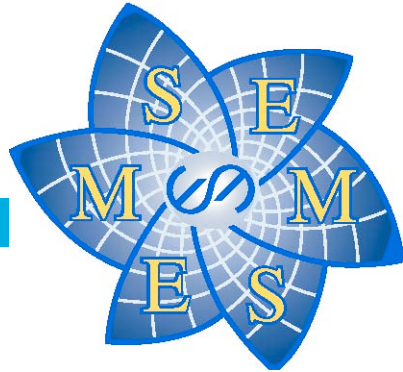Spanish Royal Math. Society, Bilbao (Spain), May 7-8, 2011

Czech Union of Math and Phys, Prague, March 31-April 1, 2012

Danish Mathematical Society, Århus, April 6, 2013

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Committees of the European Mathematical Society

The European Mathematical Society

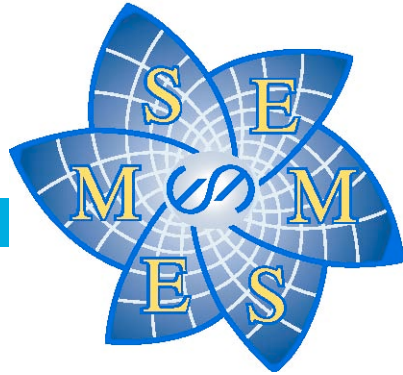| Committees of the EMS |
|---|
| Executive Committee |
| Applied Mathematics |
| Developing Countries |
| Education |
| Ethics |
| Electronic Publishing |
| Meetings |
| European Research Centers of Mathematics (ERCOM) |
| Publications |
| Raising Public Awareness of Mathematics |
| European Solidarity |
| Women in Mathematics |

The European Mathematical Society
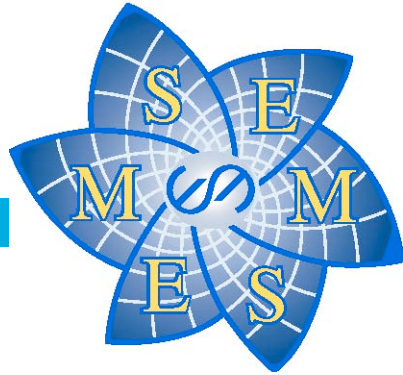
Executive Committee

It is the governing body of the Society

Pilots and represents the Society
Carries out the decisions of the Council
Appoints committees
Prepares the business for the Council
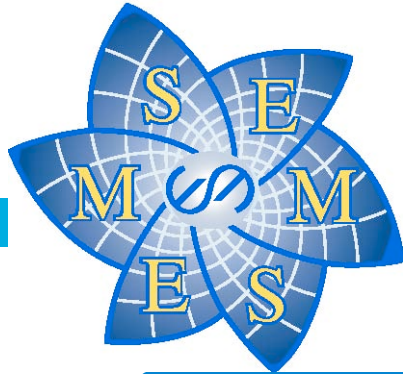
President: Marta Sanz-Solé

The European Mathematical Society

Applied Mathematics

Promotes Applied Mathematics as a whole through and within EMS. Cooperates with other European and international societies in improving the public and political awareness of mathematics to cultural, economic and social development.

Chair: María J. Esteban (France)

The European Mathematical Society

Developing Countries

Assists developing countries with the goal of helping them to improve the level of mathematical education and research.
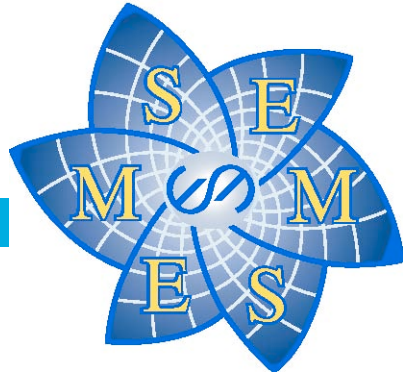
Mobilises funds for researchers to attend conferences in developed countries.

Helps (both on an academic and financial level) organising conferences in DCs.

Book Donation Initiative

Emerging Research Centers of Excelence (ERCE) Initiative
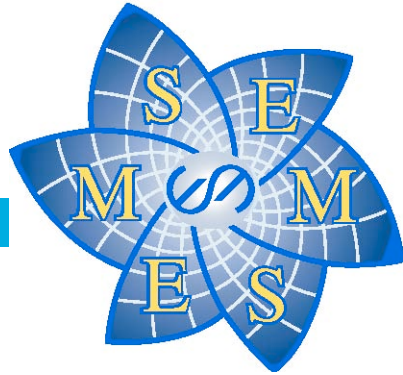
Chair: Michel Waldschmidt (France)

The European Mathematical Society

Education

The Committee reports, and where appropriate acts, on education issues that are, or should be, of concern to EMS members.

Chair: Günter Törner (Germany)
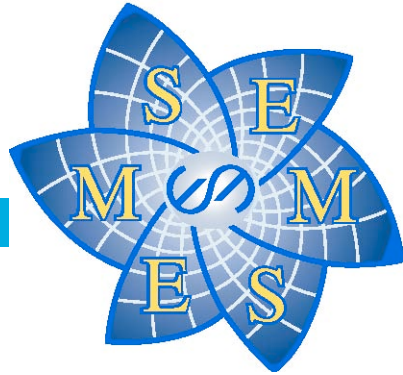
The European Mathematical Society

Electronic Publishing

It keeps the EMS abreast with the development of electronic tools of doing mathematics such as:

-electronic publishing,

-archiving and communication.

It reviews the progress in these areas and makes suggestions helping to build the appropriate electronic infrastructures.

Chair: Jiri Rákosník (Czech Republic)
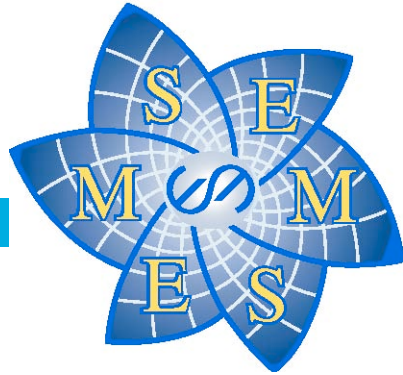
The European Mathematical Society

Ethics Committee

It focuses on unethical behavior in mathematical publications: plagiarism, duplicate publication, inadequate citations, inflated self-citations, dishonest refereeing, etc.

It is responsible for:

-raising awareness of the problem: **Code of Practice**;

-encouraging journals and publishers to follow good practices;

-providing mechanisms whereby researchers can ask the Committee to help them pursue claims of unethical behavior.

Chair: Arne Jensen (Denmark)

The European Mathematical Society

European Research Centres of Mathematics (ERCOM)

ERCOM consists of 26 Scientific Directors of European Research Centres in the Mathematical sciences

Constitutes a forum for communications and exchange of information between the centres themselves and EMS

Fosters collaboration and coordination between the centres themselves and EMS

Fosters advanced research training on a European level

Cultivates contacts with similar research centres within and outside of Europe

Chair: Keith Ball (UK)

The European Mathematical Society

Some ERCOM members

Centre de Recerca Matemàtica, Spain

Centrum voor Wiskunde en Informatica (CWI), The Netherlands

Erwin Schrödinger Institute, Austria

Institut des Hautes Études Scientifiques, France
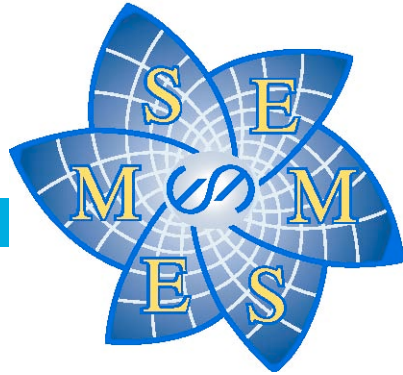
Institut Mittag-Leffler, Sweden

Isaac Newton Institute for Mathematical Sciences, UK

Istituto Nazionale di Alta Matematica Francesco Severi, Italy

Mathematisches Forschungsinstitut Oberwolfach, Germany

Stefan Banach International Mathematical Center, Poland

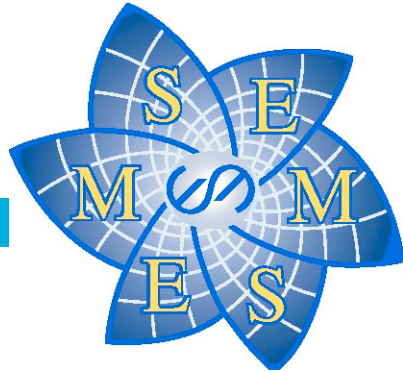Weierstrass I. for Appl. Analysis and Stochastics (WIAS), Germany

The European Mathematical Society

Committee for European Solidarity

Undertakes actions to foster the development of mathematics in economically less-favoured regions within the geographical area of EMS membership

Chair: Carles Casacuberta (Spain)

The European Mathematical Society

Meetings

Coordinates series of meetings, both in pure and applied mathematics, helping with organisation and with funding.
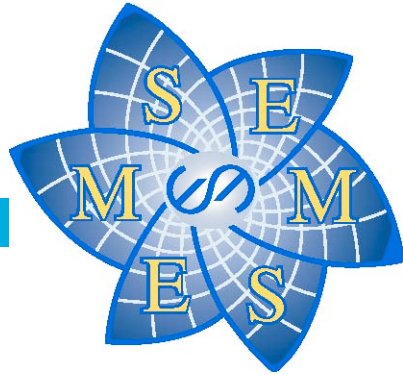
Summer schools

Joint meetings with other societies

Joint "Mathematical Week-ends" with corporate societies

EMS Mathematical Lectures
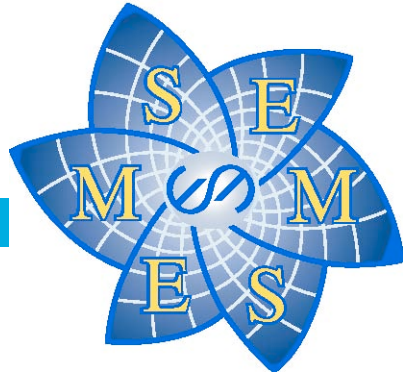
Chair: Nils Dencker (Sweden)

The European Mathematical Society

Publications

Takes up relevant questions related to scientific publications and in particular, mathematical publications. It acts as an advisory group of the Executive Committee on publication matters and for publication strategies.
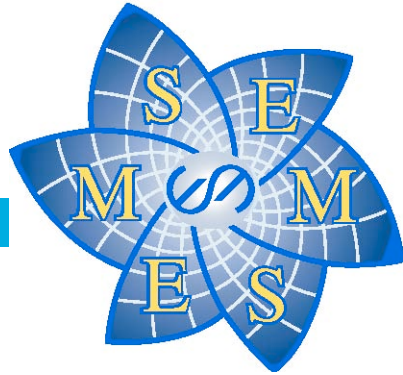
Chair: Bernard Teissier (France)

The European Mathematical Society

Raising Public Awareness of Mathematics
http://www.mathematics-in-europe.eu/

Encourages and inspires actions directed towards raising public awareness of the importance of mathematics for contemporary society from a cultural and historical perspective.

Assists in the furtherance of concerted actions with other European or international organisations in matters of raising public awareness of science and technology.

Chair: Ehrhard Behrends (Germany)

The European Mathematical Society
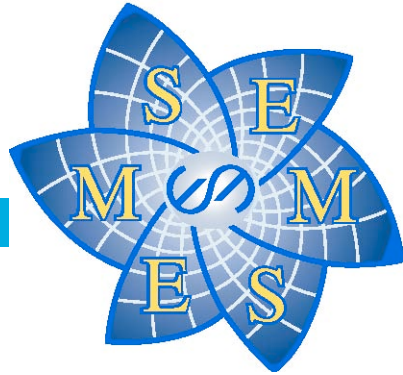
Women in Mathematics

It addresses issues relating to the involvement, retention and progression of women in mathematics.

It supports and promotes the recognition of the achievements of women mathematicians.

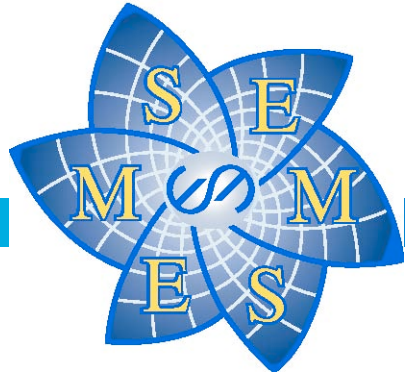It aims to act as the coordinating body for the committees for women in mathematics of EMS member societies.

Cooperates with other associations for women in mathematics.
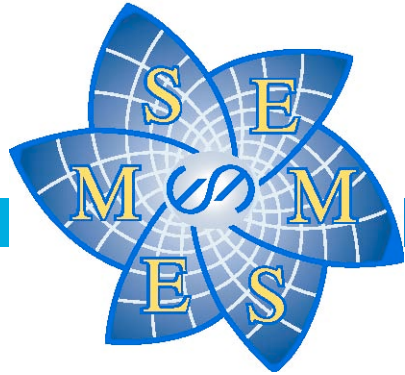
Chair: Caroline Series (UK)

The European Mathematical Society

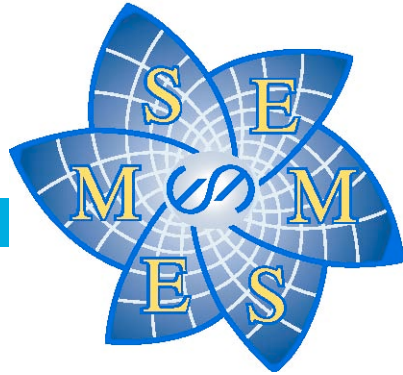## Some Activities and Projects

The European Mathematical Society

Scientific Activities

The European Mathematical Society

European Congresses of Mathematics (ECMs)

- 1992 Paris
- 1996 Budapest
- 2000 Barcelona
- 2004 Stockholm
- 2008 Amsterdam
- 2012 Kraków
- **2016** 7th ECM, Berlin, July 18-22

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Format of ECMs

Plenary lectures (10)
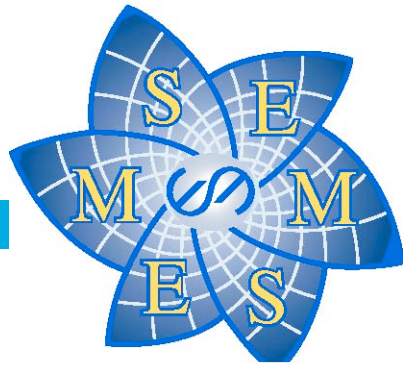
Invited lectures (30)

Minisymposia

Science lectures
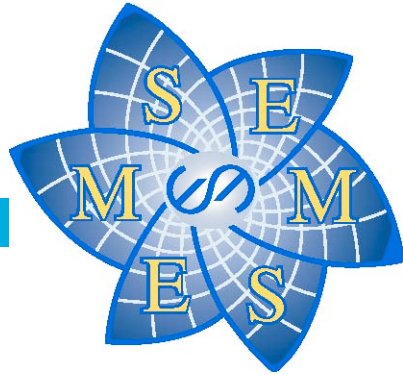
Poster sessions

Panel discussions

Exhibitions

…

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EMS Prizes

- Ten prizes presented at each ECM.
- To recognize excellent published work in Mathematics by young researchers not older than 35 years.
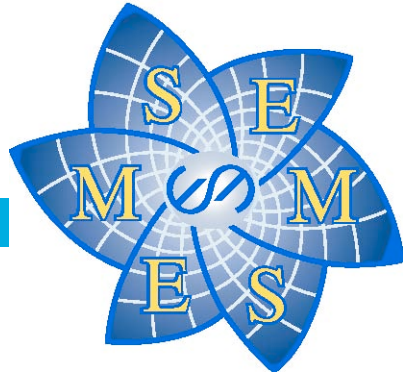
Some recipients

- Borcherds, Gowers, Kontsevitch, Lindenstrauss, Okounkov, Perelman, Smirnov, Villani, Werner (Fields Medalists), Artur Avila, Simon Brendel, Alessio Figalli, Ben Green, Siylvie Serfaty, Xavier Tolsa, Corinna Ulcigrai, Claire Voisin, …

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Other scientific activities

- Summer Schools
- EMS Lectures
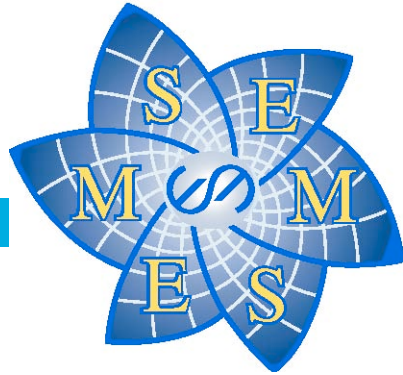- Joint EMS Mathematical Weekends
- Distinguished Speakers
- ….

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The Felix Klein Prize

- Established in 1999 by the **EMS** and the endowing organisation, the **Institute for Industrial Mathematics** in Kaiserslautern.
- Awarded to a young scientist, or a small group of young scientists, for *using sophisticated methods to give an outstanding solution, which meets with the complete satisfaction of industry, to a concrete and difficult industrial problem.*

Previous recipients

- David Dobson (2000), Joselin Garnier (2008), Emmanuel Trélat (2012).
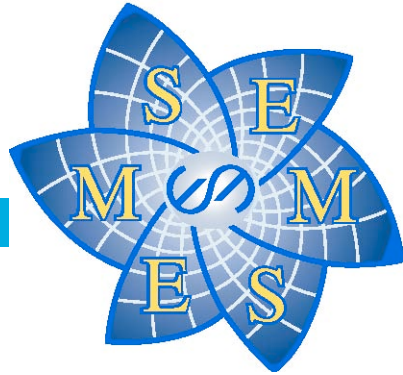
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Otto Neugebauer Prize in the History of Mathematics

A EMS-Springer prize, funded by Springer.

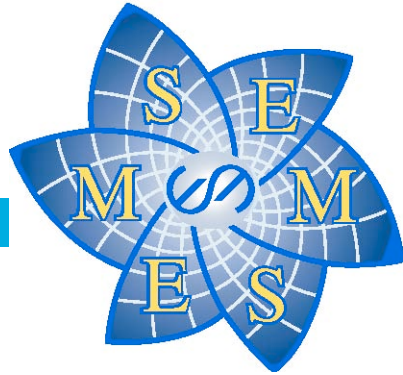Named after Otto Neugebauer, the **father of both, Zentralblatt and Mathematical Reviews**.

First recipient: Jan P. Hogendijk (2012)

www-gap.dcs.st-and.ac.uk/history/Biographies/Neugebauer.html

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Publication Activities

The European Mathematical Society
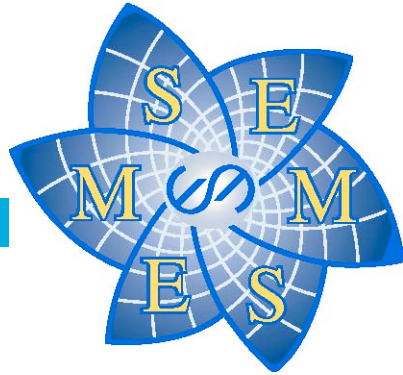
European Mathematical Foundation

EMS Publishing House

www.ems-ph.org

- Created by EMS in 2002.
- Permanent office at ETH, Zürich.
- Board of Trustees consisting of EMS officers and elected members.
- Director: Thomas Hintermann.
- Publishing Director: Manfred Karbe.

The European Mathematical Society

Mission statement of the EMF

The EMS Publishing House is a not-for-profit organization **dedicated to the publication of high-quality peer-reviewed journals and high-quality books, on all academic levels and in all fields of pure and applied mathematics.**
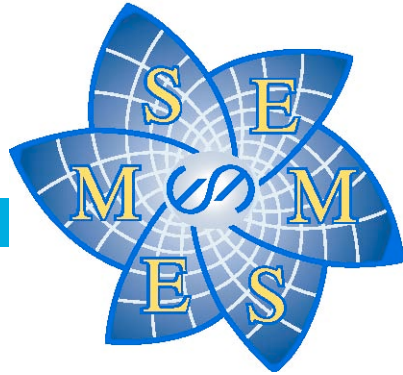
The proceeds from the sales are used to keep the Publishing House on a sound financial footing.

The prices are set as low as is practicable in the light of its mission and market conditions.
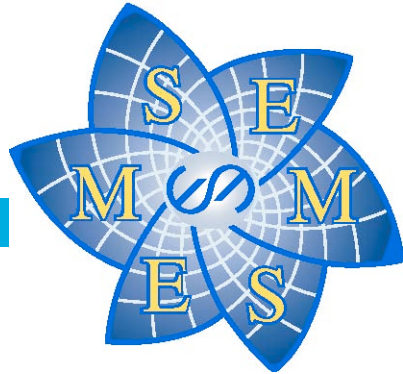
The European Mathematical Society

Publications

- Books
- e-Books
- Journals
- Oberwolfach Reports
- EMS Newsletter

The European Mathematical Society

EMS Monograph Award

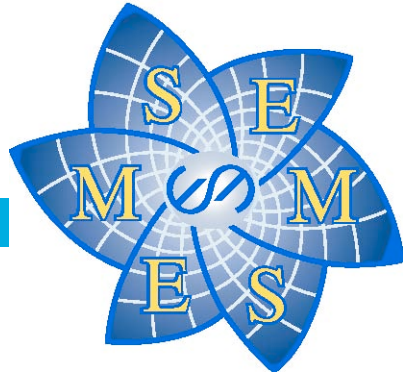A biennial Prize endowed with 10.000 Euros, awarded to a monograph in any mathematical field.

Deadline for submission of manuscripts:
June 30, 2013

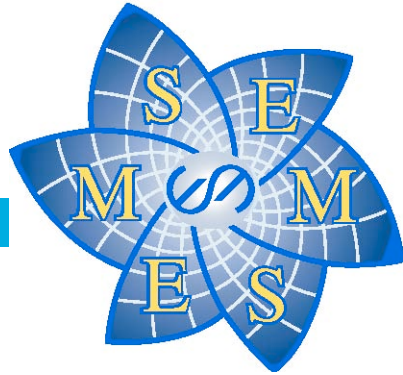# The European Mathematical Society

Books Series

- EMS Monographs in Mathematics
- EMS Series of Congress Reports
- EMS Series of Lectures in Mathematics
- EMS Textbooks in Mathematics
- EMS Tracts in Mathematics
- ESI Lectures in Mathematics and Physics
- Heritage of European Mathematics
- IRMA Lectures in Mathematics and Theoretical Physics
- Zurich Lectures in Advanced Mathematics

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Journals

- Commentarii Mathematici Helvetici
- Elemente der Mathematik
- Groups, Geometry and Dynamics
- Interfaces and Free Boundaries
- Journal of Noncommutative Geometry
- Journal of Spectral Theory
- Journal of the European Mathematical Society
- Portugaliae Mathematica
- Publications of the Research Institute for Mathematical Sciences
- Quantum Topology
- Revista Matemática Iberoamericana
- Rendiconti Lincei - Matematica e Applicazioni
- …..

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Zentralblatt MATH

In partnership with

FIZ Karlsruhe, **EMS**, Heidelberger Akademie der Wissenschaften

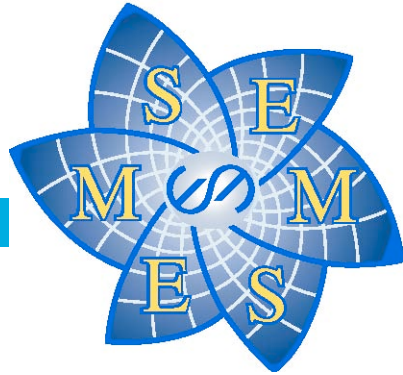Publisher: Springer Verlag

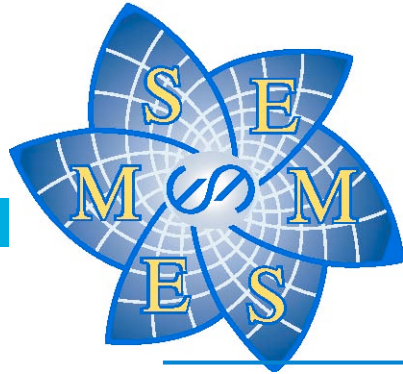Supported with German funds

www.zentralblatt-math.org/zbmath

The European Mathematical Society

A Sample of Projects

The European Mathematical Society

## ESF Forward Look Project Mathematics and Industry

www.ceremade.dauphine.fr/FLMI

How can mathematics respond to the needs of industry and provide the right tools?

Quoting Mario Primicerio, former Chair of the Applied Mathematics Committee:

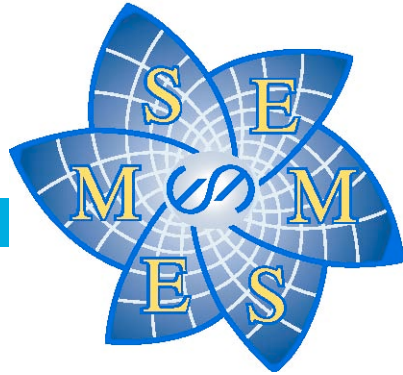How can industrial issues give birth to new lines of research in mathematics?

How can we extend to the European level isolated positive experiences from different European countries and organisations?
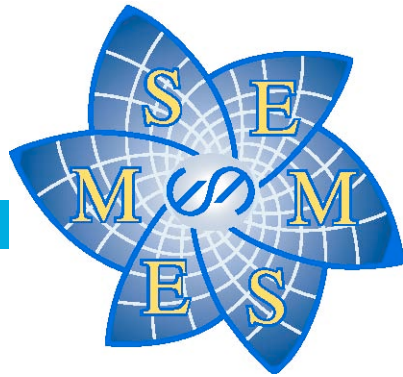
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Objectives:

1. To identify the mathematical challenges faced by industry in the globalised economic environment. To analyze the implications of the trends for the relationship between mathematical scientists in academia and industry.

2. To identify and analyze major challenges and opportunities for a mutually beneficial partnership between industry and academia.

3. To give recommendations concerning training young researchers in applied mathematics.

4. To identify what resources are necessary for the implementation of the recommendations.

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Three working groups on specific topics:

- Training and career development (Magnus Fontes, Sweden).
- Academia-Industry interface (Volker Mehrman, Germany).
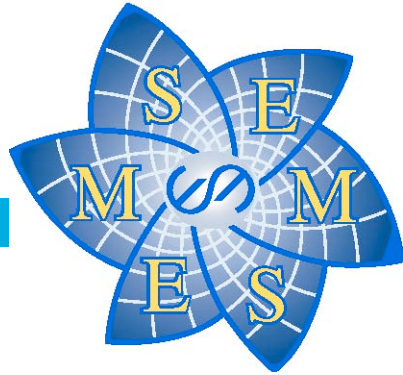- Opportunities and challenges (Yvon Maday, France).

Two documents:

- Final Report
- Success Stories

Final Conference:

- Presentation of conclusions in Brussels, **December 2, 2010**, attended by the Vice-President of the European Parliament.
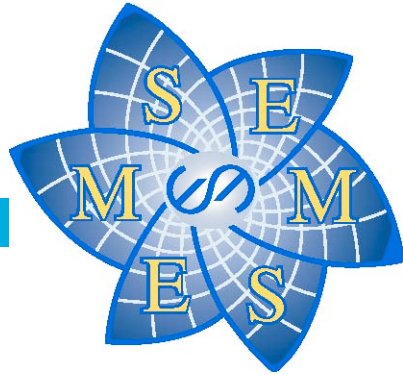
The European Mathematical Society

The European Digital Mathematics Library

www.eudml.eu

The EuDML portal will be a single well-organised resource offering a long-standing reliable system with sophisticated tools available for search and exploration. This will be achieved by implementing a single access portal for heterogeneous and multilingual collections, on top of a rich metadata repository endowed with a user-focused interface.

The European Mathematical Society

ESF-EMS-ERCOM Conferences

www.esf.org/activities/esf-conferences.html

Partnership with ESF (2008-**2012**)

ESF Research Conferences Scheme

Up to 6 conferences per year financed 50% by ESF
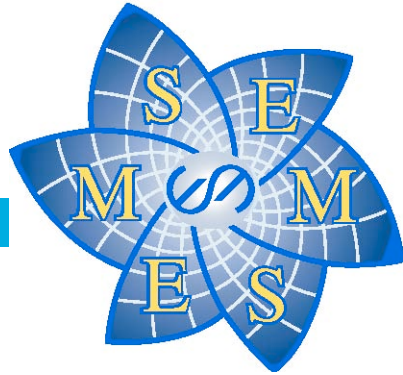
Conferences should be held at an **ERCOM** center

The European Mathematical Society

EMS Summer Schools in Applied Mathematics

Partnership with

CIME (Italy), ESMTB, IMPAM (Poland), Institut Louis Bachelier (France)
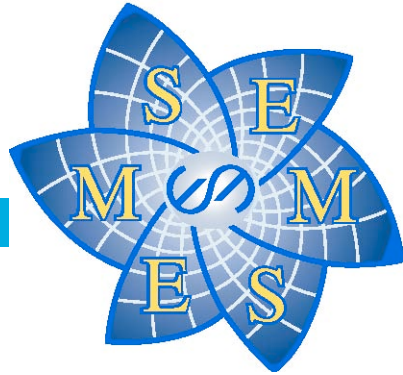
Initiated in 2008

The European Mathematical Society

EMS Advanced Schools in Mathematics

To be initiated in 2014

The European Mathematical Society

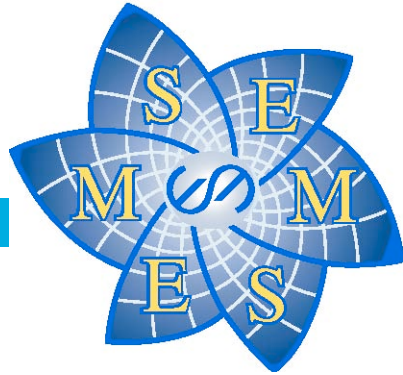www.mathematics-in-europe.eu

Mathematics in Europe

An EMS project funded by Munich Re (Germany)

Addressed to:

- Everyone who is interested in mathematics: journalists, school children, students, teachers, professional mathematicians.
- Everyone looking for suggestions for increasing public awareness of mathematics.
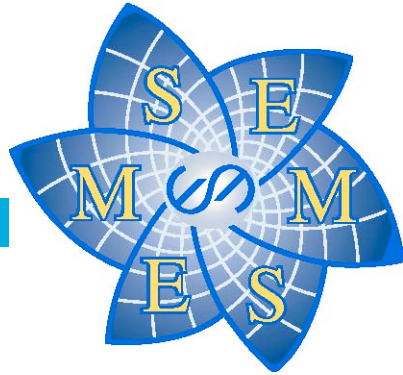
Entries include:

- News, Information, Popularization Activities, Math Help, Math(s) as a profession, Competitions.
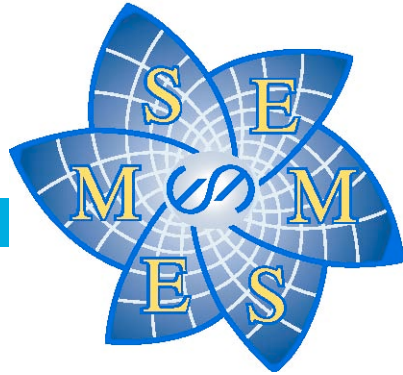
The European Mathematical Society

Influence of the EMS

The European Mathematical Society

EMS

- Is a voice of mathematics in Europe;
- Provides a suitable structure for the development of **mathematics in its unity;**
- Acting at an **European scale,** it can address **crucial questions** for mathematics at the **critical level;**
- Provides a large **scientific and social network** to support the demands of mathematical developments;
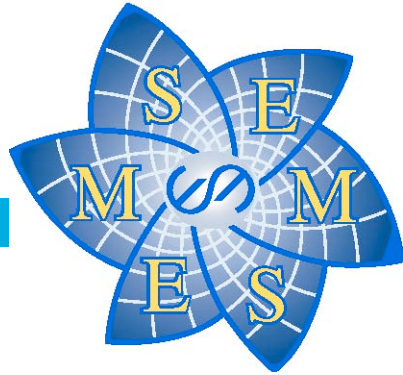
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EMS

- Has been influential in the creation of the **European Research Council**;
- Nominates representatives at the **Abel Prize Committee** and other scientific boards;
- Participates in the European platform **Initiative for Science in Europe**;
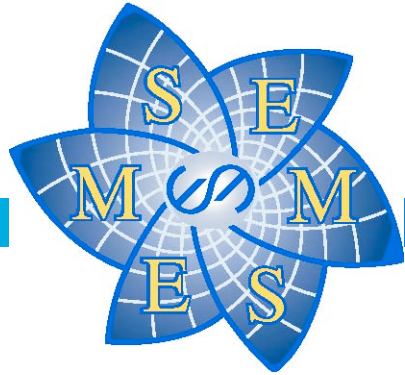
The European Mathematical Society

EMS

- Acts as intermediary between mathematicians and politicians at the **EU** (European Commisssion, Parliament, other European organizations), and transmits **the specific needs of mathematical research.**

- Aims to obtain the **appropriate European investment** to maintain European research in mathematics at the highest level, and to assure its **long-term development**.

The European Mathematical Society

Not yet a member of EMS?

Please, join!

www.euro-math-soc.eu