

Meeting of the Mongolian
Mathematical Society
September 15th 2015

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<http://www.mat.uniroma3.it/users/pappa/>



Mathematics Institutions in Italy

- **ICTP** (*Abdus Salam Center for Theoretical Physics – Trieste*)
<http://www.ictp.it/>
- **UMI** (*Italian Mathematical Union – Bologna*)
<http://umi.dm.unibo.it/>
- **INDAM** (*Istituto Nazionale di Alta Matematica "F. Severi" – Roma*)
<http://www.altamatematica.it/>

ICTP - International Centre for Theoretical Physics

Founded in 1964 by the late Nobel Laureate Abdus Salam, ICTP seeks to accomplish its mandate by providing scientists from developing countries with the continuing education and skills that they need to enjoy long and productive careers. ICTP has been a major force in stemming the scientific brain drain from the developing world.



Mission

An institute run by scientists for scientists

ICTP's mission is to:

- Foster the growth of advanced studies and research in physical and mathematical sciences, especially in support of excellence in developing countries.
- Develop high-level scientific programs keeping in mind the needs of developing countries, and provide an international forum of scientific contact for scientists from all countries.
- Conduct research at the highest international standards and maintain a conducive environment of scientific inquiry for the entire ICTP community.



GOVERNANCE

- ▶ ICTP's strategic advisors
 - Italian Government
 - International Atomic Energy Agency (IAEA)
 - United Nations Educational, Scientific and Cultural Organization (UNESCO)
- ▶ Since 1996, UNESCO responsible for the administrative management of the Centre
- ▶ ICTP Steering Committee (3 members)
- ▶ ICTP Scientific Council (18 members)



Programs

- ICTP Postgraduate Diploma Program (1 year)
- ICTP/IAEA Sandwich Training Education Program (Phd Fellowships)
- Joint ICTP/SISSA PhD Program in Physics and Mathematics



Research

- **HECAP** *High Energy, Cosmology and Astroparticle Phys*
- **CMSP** *Condensed Matter and Statistical Physics*
- **MATH** *Mathematics*
- **ESP** *Earth System Physics*
- **AP** *Applied Physics*
- **QLS** *Quantitative Life Sciences*



Opportunities

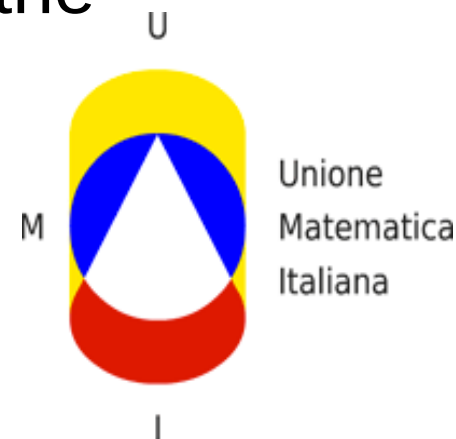
- Associates Scheme
- Federation Scheme
- OFID Postgraduate Fellowship
- The Kuwait Program at ICTP



Unione Matematica Italiana

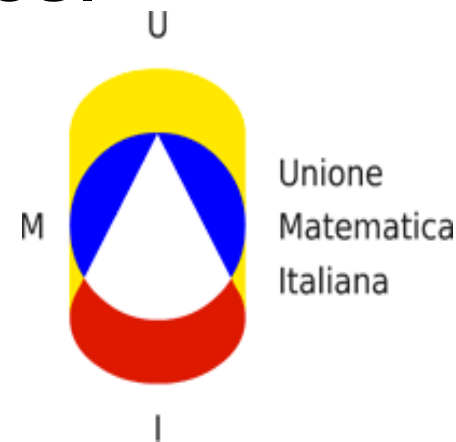
The Italian Mathematical Union (UMI) was born in compliance of a vote formulated in Brussels (July 1919) by the International Research Council, which called for the emergence of national scientific committees.

Italy at that time was represented by the **Accademia dei Lincei** and in particular by *Vito Volterra* in 1920 proposed, together with a group of mathematicians, including *Luigi Bianchi*, *Pietro Burgatti*, *Roberto Marcolongo*, *Carlo Somigliana* and *John Cow*, the Constitution of the Italian Mathematical Union



AIMS

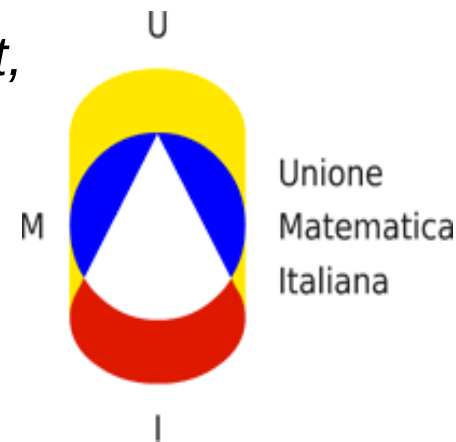
- to encourage pure science,
- to encourage the rapprochement between pure mathematics and other sciences,
- To promote orientation and progress of teaching
- The organization, preparation and participation in national and international conferences.



Governing Bodies

The bodies specified in the Charter are: ***The Assembly, The Presidency Cabinet, The Scientific Commission.***

- ★ The Assembly normally meets once a year.
- ★ Presidency Office
(elected every 3 year – June 2015 - May 2018)
It consists of the President, the Vice-President, Secretary, Administrator-Treasurer
- ★ Scientific Commission
(elected every 3 years - June 2015 - May 2018)
The Panel is composed of the President, the Vice-President, Administrator-Treasurer and fifteen other members elected.

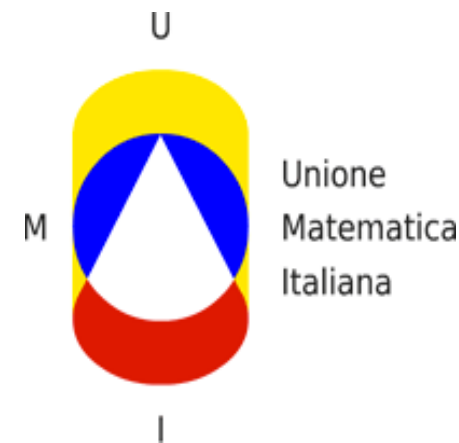


Commissions

- *CIIM (Italian Commission for the Teaching of Mathematics)*
- *Commission Scientific Olympics*

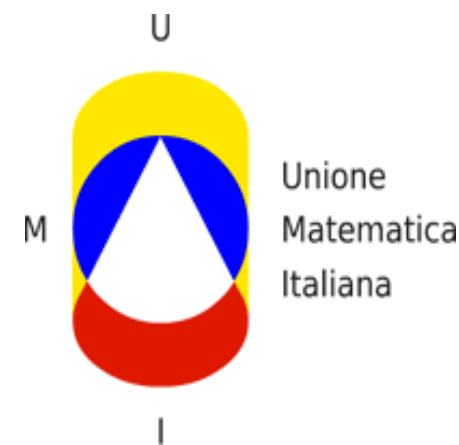
Memberships

- *Approximately 3000 members*
- *Year dues 60€ - 120€*



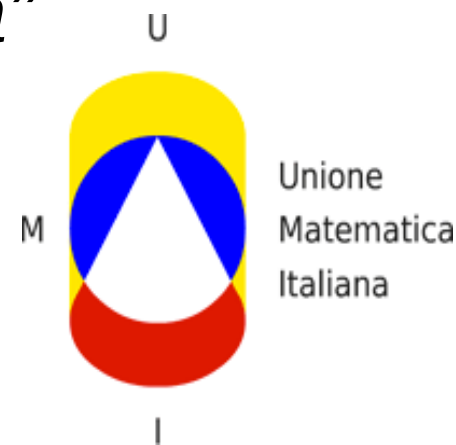
Foreign Societies with reciprocal agreement with UMI

- AMS = American Mathematical Society
- DMV = Deutsche Mathematiker Vereinigung
- SMG = Schweizerische Mathematische Gesellschaft
- LMS = London Mathematical Society
- RSME = Real Sociedad Matemática Española
- SMAI = Société Mathématiques Appliquées et Industrielles
- SMF = Société Mathématique de France
- SPM = Sociedade Portuguesa de Matematica
- CMS = Canadian Mathematical Society
- SBM = Sociedade Brasileira de Matematica
- ÖMG = Österreichische Mathematische Gesellschaft
- PTM = Polskie Towarzystwo Matematyczne
- IMS = Indian Mathematical Society
- AuMS = Australian Mathematical Society



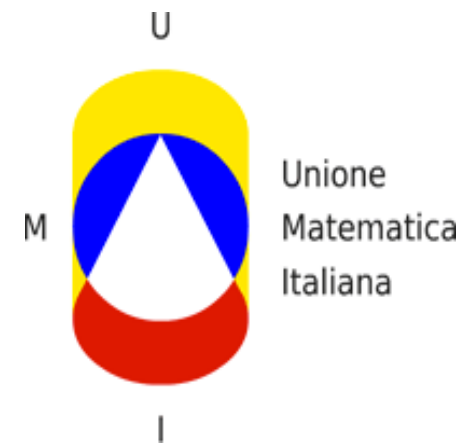
Publications (periodicals)

- *Bollettino dell'U.M.I. (Springer) since 1922 quarterly*
- *Notiziario since 1922 quarterly*
- *“La Matematica nella Società e nella Cultura – Rivista dell'Unione Matematica Italiana”*



Other Publications

- Series
 - Collected Works
 - Mathematical monographs
 - Quadreni (Notebooks)
- Series by UMI:
 - Studies and history textbooks of mathematics
 - Culture Mathematics
 - convergences
 - UMI Lecture Notes
- Conference Proceedings
 - Proceedings of Congress quadrennial
 - Proceedings of Conferences
 - Proceedings of Joint Meetings



Istituto Nazionale di Alta Matematica

- ❖ INdAM (National Institute of Higher Mathematics) a Research Institute with self-governing status supervised by M.I.U.R. (Ministry responsible for Education, University and Research)
- ❖ First founded in 1939 by the mathematician Francesco Severi, it was subsequently given legal status 1992



Aims (Mission Statement)

- To promote the training of researchers in mathematics, at national, international and European community level, in particular to supplement the training potential of the Italian universities.
- To develop research in pure and applied mathematics, especially in the emerging branches, and to foster the transfer of knowledge to technological applications.
- To foster close and sustained contact between Italian and international mathematical research, in particular by participating in programs within the framework of the European Union.



Governing Body

The governing body of INdAM is organized as follows:

- The President, elected by the Scientific Community
- The Scientific Council (Consiglio Scientifico) is composed of seven members elected for four-year terms from the community of university mathematicians.
- The Board of Administration, composed of the President, a professor elected by the community of university mathematicians and of an expert nominated by the Ministry of the Research.
- The Board of Auditors of Accounts.



The role of INdAM in research

- INdAM has no permanent research staff. Most of the research activities of INdAM are carried out by the **4 National Research Groups**, drawing researchers, including both early stage and advanced fellows, from Universities, public and private Research Centres and the INdAM advanced fellows. The Groups carry out the following activities:
 1. *Invitation of foreign scientists to develop research and also for consultation and high-level training.*
 2. *Payment of missions abroad for their members.*
 3. *Organization of and participation in, meetings prepared by their members.*
 4. *Financing of travel abroad for research or meetings of doctorate and research fellows.*
 5. *Research projects.*



4 National Groups, 2,500 members

GNAMPA (874). Mathematical analysis, Probability and its applications.

- *GNSAGA (674) Algebraic, geometric structures and their applications.*
- *GNFM (543) Mathematical physics.*
- *GNCS (482) Computer science (with two principal applications: medical engineering and technology for the knowledge society).*



Foreign doctoral fellowships

- With the aim of encouraging foreign graduates to undertake Italian doctorate (Ph.D level) studies, the sum of € 12,000 per year was put on offer, renewable for maximum three times. The application deadlines were subsequently modified to be consistent with other such awards, and the number of qualified applicants has greatly increased.
- In the context of a new program beginning in 2006, 11 awards were made in all 33 months of support, to Italian doctor's degree students to help financing visits to foreign universities.



INdAM POST-DOCTORAL SCHOLARSHIPS

Recently the INdAM has received a support by the Company of San Paolo for post-doc scholarships awarded on the basis of research projects in one of the following fields:

- biomathematics,
- bio computersciences,
- nano-sciences,
- image processing with applications in medical field,
- Methods and mathematical models for genetics and genomics.

