

CIMPA

ICPAM

CENTRE INTERNATIONAL DE MATHÉMATIQUES PURES ET APPLIQUÉES

INTERNATIONAL CENTER FOR PURE AND APPLIED MATHEMATICS

[INSPEM](#), [University Putra Malaysia](#),

March 18, 2014

Michel WALDSCHMIDT, Université Paris 6

<http://www.math.jussieu.fr/~miw/>

<http://www.cimpa-icpam.org>



CIMPA-ICPAM's mission

To promote international cooperation for the benefit of developing countries, in higher education and research in Mathematics and their applications, as well as in related subjects

- to this end CIMPA-ICPAM organizes research schools, supports seminars and sustains networks of researchers
- its actions are concentrated at places where there is the will to further develop Mathematics, and where a research project is feasible
- looking for three main equilibria : gender, geographic, and thematic

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CIMPA-ICPAM research schools

Open call every year

- proposals for two weeks schools come from everywhere, some encouraged by CIMPA-ICPAM members
- the Scientific Council analyses, evaluates and makes recommendations
- the Steering Council select about 15 to 20 school projects per year

Schools are organized locally with scientific and administrative help from CIMPA-ICPAM, in a North-South-South format

New initiative: informal agreement with India and Argentina. They will fund their participants to all neighbouring CIMPA-ICPAM school

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CIMPA-ICPAM research schools

Young participants from neighboring countries are selected by the organizers and CIMPA-ICPAM. They receive full financial support by CIMPA-ICPAM.

Lecturers and speakers are not paid. They obtain their own funding for travel and accommodation. CIMPA-ICPAM provides help in this direction (letters, explanation of the main purpose, contact with Scientific attachés of the local French Embassies)



CIMPA Research Schools



Barranquilla (Colombia) CIMPA Research School 2013

CIMPA Research Schools

- 30 to 40 K€ = average budget for a RS
 - 12 K€ = average CIMPA participation
 - 8 K€ - at least - for young people from neighboring developing countries
 - 4 K€ - at most - for lecturers, speakers or local expenses
- A four-page Road map helps from the very beginning to have a successful RS
- Each RS has two final complete reports. One from the local organizers, the other from CIMPA representative.

2014



Valparaíso
Chile january 20 - 31
Algebra, combinatorics and physics

Villa de Leyva
Colombia july 13 - 26
Real algebraic geometry

Santiago
Chile sept 25 - Oct 3
Geometric methods in classical dynamical systems

Cuernavaca
Mexico nov 24 - Dec 5
Singularity theory in topology, geometry and foliations

Abidjan
Ivory Coast march 17 - 28
Analyse et probabilités

M'bour
Senegal june 16 - 29
Méthodes algorithmiques et applications en géométrie algébrique réelle et théorie des nombres

Dangbo
Benin july 6 - 19
Algebraic number theory and applications (CIMPA-ICTP)

Nablus
Palestine august 18 - 28
Random structures, analytic and probabilistic approaches

Beirut
Lebanon feb. 24 - march 6
Elliptic problems and applications in geometry

Istanbul
Turkey june 2 - 10
Algebraic geometry and number theory

Tanger
Morocco may 8 - 17
EDPs non linéaires et applications: étude théorique et numérique

Meknes
Morocco september 8 - 17
Operator theory and the principles of quantum mechanics

Tlemcen
Algeria april 12 - 25
Geometric, stochastic and PDE control

Lahore
Pakistan november 10 - 21
Dynamical systems and applications: geometrical, topological, and numerical aspects

Kathmandu
Nepal november 3 - 16
Aspects of dynamical systems

Erbil
Kurdistan-Iraq may 5 - 14
Inverse problems: theory and applications

Kozhikode
India august
Mock modular forms (CIMPA-ICTP)

Bandung
Indonesia august 25 - sept 5
Mathematical and statistical methods for imaging

Manila
Philippines june 23 - july 4
Partial differential equations: analysis, numerics and applications to floods and tsunamis


Vientiane
Laos december 8 - 19
Graph labelings, graph decompositions and hamiltonian cycles

CIMPA2014

Écoles de recherche Research Schools

INTERNATIONAL CENTRE FOR PURE AND APPLIED MATHEMATICS (CIMPA) is an international organisation that promotes research and higher education in Mathematics in developing countries. CIMPA is sponsored by UNESCO, and supported by Norway (Ministry of Foreign Affairs and University of Oslo), Spain (Ministry of Education and Science), France (Centre National de la Recherche Scientifique (CNRS)), and by the Centre National de la Recherche Scientifique (CNRS) in France, the University of Oslo in Norway, and the University of Stavanger in Norway.

<http://www.cimpa-icpam.org/>



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India and West Asia 2014

Inverse problems : Theory and applications

CIMPA-KURDISTAN-IRAQ

Erbil, Kurdistan-Iraq, May 5-14

Mock Modular Forms

CIMPA-ICTP-INDIA

Research School co-sponsored with ICTP

Kozhikode, India, July 28 - August 8

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India and West Asia 2014 (continued)

Aspects of Dynamical Systems

CIMPA-NEPAL

Kathmandu, Nepal, November 3-16

Dynamical Systems and Applications : Geometrical, Topological, and Numerical Aspects

CIMPA-PAKISTAN

Lahore, Pakistan, November 10-21

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South and East Asia (2014)

Partial Differential Equations: Analysis, Numerics and Applications to Floods and Tsunamis

CIMPA-PHILIPPINES

Manila, Philippines, June 23 - July 4

Mathematical and Statistical Methods for Imaging

CIMPA-INDONESIA

Bandung, Indonesia, August 25 - September 5

Graph labelings, graph decompositions and Hamiltonian cycles

CIMPA-LAOS

Vientiane, Laos, December 8-19

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Some further activities

AFRICA:

- UNESCO Chair (Tunisia)
- SARIMA (Mathematics and Computer Science in Africa)
- CARI (Conference on Research in Computer Science)
- WATS (West African Training Schools)

LATIN AMERICA:

- EMALCAs
- REALMA (European and Latin American network in applied mathematics)

MIDDLE EAST: MA3N (Mathematical Analysis & Application Arab Network)

SOUTH EAST ASIA:

- Cambodia, Laos, (regional master program)
- IMAMIS

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Numbers

260 research schools since 1979

<http://www.cimpa-icpam.org/spip.php?rubrique70>

101 participations in higher level education and research networks
(seminars, workshops and doctoral courses)

Countries

- 18 from Africa
- 12 from Asia
- 13 from South America and Caribbean
- 8 from the Middle East
- 4 from Central and Eastern Europe

13000 young mathematicians

2500 speakers, 1100 from Southern countries

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Budget 2012

512 K€

- 68% France
- 12% Switzerland
- 6% Norway
- 4% Spain
- 5% ICTP and others
- 5% Membership dues

Half of the budget for Africa (Sub-Saharan and Mediterranean)

- paid from budget : one and a half full time secretaries in Nice
- scientific officers, members of councils and lecturers are volunteers
- Not in the budget: salary of the Director, paid by Université Montpellier 2 and support by Université Nice Sophie-Antipolis and CNRS.

CIMPA-ICPAM's history

CIMPA-ICPAM is:

- a non-profit organization created in 1978 with office at Nice, France
- currently funded by the Ministère de l'enseignement supérieur et de la recherche (France), the University of Nice-Sophia Antipolis (France), the Ministerio de Ciencia e Innovación (Spain) and the Centre national de la recherche scientifique (France)

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CIMPA-ICPAM organization

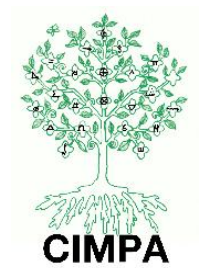
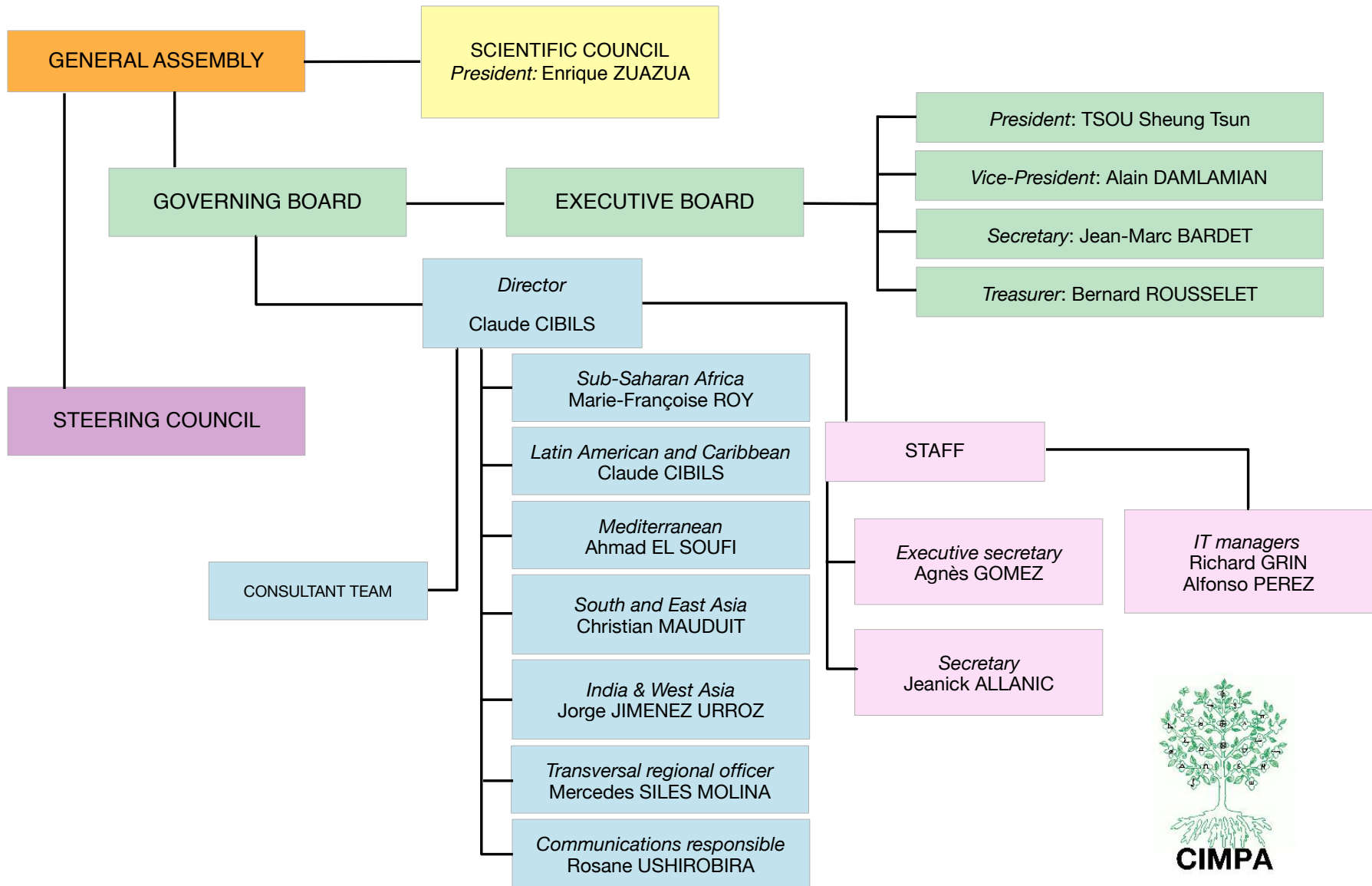
CIMPA-ICPAM is a category 2 UNESCO center

- with a Governing Board involving permanent institutional members (UNESCO, French Ministries, MICINN, Université de Nice)
- with a Executive Board elected for a 4 years term by the General Assembly
- with a Scientific Council and a Steering Council
- with a Management team consisting of a Director, the Regional Scientific Officers and an Officer in charge of communications

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Scientific Council

Chairman: Enrique ZUAZUA (Spain) (Applied Maths)

- Jean-Marc AZAÏS (France) (Probability, statistics)
- Viviane BALADI (France) (Dynamical systems)
- Edy Tri BASKORO (Indonesia) (Graph theory)
- Suzanne BRENNER (USA) (Numerical analysis)
- Maria Luiza FERNANDEZ (Spain) (Differential geometry)
- Helena LOPES (Brazil) (PDE, Non linear analysis)
- Youssef OUKNINE (Marocco) (Probability, stochastic equations)
- Carlos DI PRISCO (Venezuela) (Logic)
- Ragni PIENE (Norway) (Algebraic geometry)
- Ramdorai SUJATHA (India) (Number theory, K-Theory)
- Cédric VILLANI (France) (Fields Medal)

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Executive Board

President: TSOU Sheung Tsun

University of Oxford (Mathematical physics)

Vice-President: Alain DAMLAMIAN

Université Paris 12 (Nonlinear analysis, nonlinear partial diff. equations)

Secretary: Jean-Marc BARDET

Université Paris 1 (Probability and statistics)

Treasurer : Bernard ROUSSELET

Université de Nice (Nonlinear vibrations, optimisation)

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Management team

Director : Claude CIBILS (Université Montpellier, on leave at Université de Nice)

Regional scientific officers:

- *Subsaharian Africa:* Giulia di NUNNO (University Oslo) & Sylvain DUQUESNE (Université de Rennes)
- *Latin America and Caribbean:* Claude CIBILS
- *South-east Asia:* Christian MAUDUIT (Université de Marseille) & Brigitte LUCQUIN (Université Paris 6)
- *India and West Asia:* Jorge Jimenez URROZ (Universita Politècnica Barcelona) & Elisa GLORIA (Université Neuchatel)
- *Mediterranean:* Ahmad EL SOUFI (Université de Tours)
- *Transverse* Mercedes SILES MOLINA (Universidad Malaga)

Consultant team: Michel JAMBU (Université de Nice) & Michel WALDSCHMIDT (Université Paris 6)

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Scientific partners

Université de Nice Sophia-Antipolis (**UNS**), Institut National de Recherche en Informatique et en Automatique (**INRIA**), Centre National de la recherche Scientifique (**CNRS**), Société Mathématique de France (**SMF**), Société de Mathématiques Appliquées et Industrielles (**SMAI**), International Mathematical Union (**IMU**), International Council for Industrial and Applied Mathematics (**ICIAM**), European Mathematical Society (**EMS**), International Centre for Theoretical Physics (**ICTP**), Union Mathématique Africaine (**UMA**), South East Asian Mathematical Society (**SEAMS**), Union Mathématique d'Amérique Latine et Caraïbes (**UMALCA**), Comité National Français des Mathématiciens (**CNFM**), Centro de Modelamiento Matemático (**CMM**), Bordeauxthèque, Institut de Recherche pour le Développement (**IRD**), Comité Español de Matemáticas (**CEMAT**), Real Sociedad Matemática Española (**RSME**), Societat Catalana de Matemàtiques (**SCM**), Sociedad Española de Matemática Aplicada (**SEMA**), Sociedad Española de Estadística e Investigación operativa (**SEIO**)

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International support for CIMPA-ICPAM

Convention MICINN (Ministerio de Ciencia e Innovación, Spain) – CIMPA, thanks to the former President of CIMPA, Mario Wschebor

- It allows CIMPA-ICPAM to respond to more requests of help from developing countries, much more than we can support at the moment
- It was a first step towards the internationalization of CIMPA-ICPAM

Supports from the governments of Norway and Switzerland

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