

CIMPA

ICPAM

CENTRE INTERNATIONAL DE MATHÉMATIQUES PURES ET APPLIQUÉES

INTERNATIONAL CENTER FOR PURE AND APPLIED MATHEMATICS

Place, Month Day, 2011

Name, *position*, University

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's history

CIMPA-ICPAM is:

- a non-profit organization created in 1978 with office at Nice, France
- mainly 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)
- a category 2 center of UNESCO since the 90's

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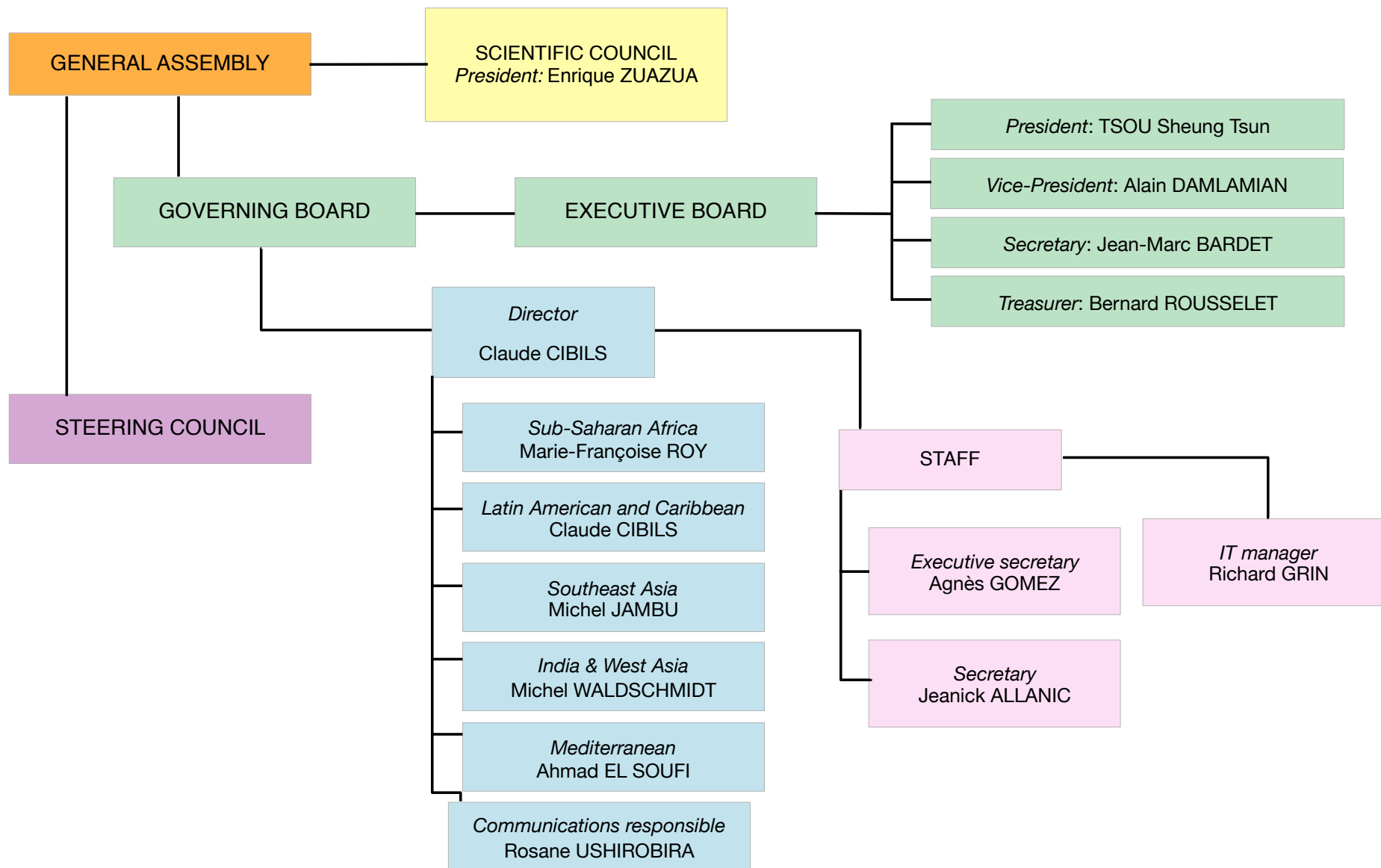
CIMPA-ICPAM organization

CIMPA-ICPAM is a category 2 UNESCO center

- with permanent institutional members (UNESCO, French Ministries, MICINN, University of Nice) and 6 individual members in its Governing Board
- 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, five Regional Scientific Officers and an Officer in charge of communications

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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)

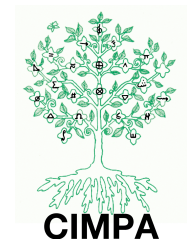
Secretary: Jean-Marc BARDET

Université Paris 1 (Probability and statistics)

Treasurer: Bernard ROUSSELET

Université de Nice (Nonlinear vibrations, optimisation)

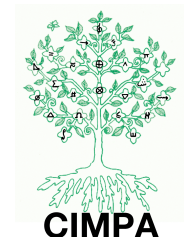
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Scientific Council

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)
- Vaughan JONES (USA) (Fields Medal)
- Orlando 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)



Management team

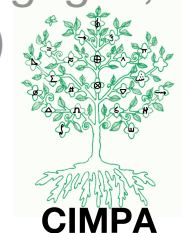
Director : Claude CIBILS (Université Montpellier, on leave at Université de Nice)

Regional scientific officers:

- *Sub-saharan Africa:* Marie-Françoise ROY (Université de Rennes 1)
- *Latin America and Caribbean:* Claude CIBILS
- *South-east Asia:* Michel JAMBU (Université de Nice)
- *India and West Asia:* Michel WALDSCHMIDT (Université de Paris 6)
- *Mediterranean:* Ahmad EL SOUFI (Université de Tours)

Communication responsible: Rosane USHIROBIRA (Université de Bourgogne, on leave at INRIA Lille)

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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 Matematico (**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**)

CENTRE INTERNATIONAL DE MATHÉMATIQUES PURES ET APPLIQUÉES
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Numbers

180 research schools

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

Countries

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

10000 young mathematicians

700 speakers, 110 from Southern countries

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A new era for CIMPA-ICPAM

The convention MICINN (Ministerio de Ciencia e Innovación, Spain)
- CIMPA brings new perspectives:

- it will allow CIMPA-ICPAM to respond to more requests of help from developing countries, much more than we can support at the moment
- it is a first step towards new European member states as Norway and Switzerland, then hopefully Germany and Italy

In December 2010, a convention was signed with Argentina



CIMPA-ICPAM research schools

Open call every year

- proposals for two weeks schools come from everywhere, some encouraged by CIMPA-ICPAM members
- Scientific Council analyzes, evaluates and make recommendations
- Steering Council select about 15 to 20 research school projects

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

New initiative: agreements with Argentina, Brazil and India. They will fund their participants to all neighboring CIMPA-ICPAM school

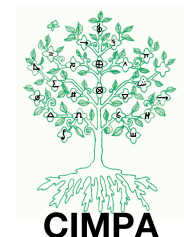


CIMPA-ICPAM research schools


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)

Typical budget for a school is about 30k€ (CIMPA-ICPAM participation is about 10k€, mainly for young people from developing countries)



2011



Villa de Leyva, Colombia July 4–22, 2011 GEOMETRIC, ALGEBRAIC AND TOPOLOGICAL METHODS FOR QUANTUM FIELD THEORY	Dakar, Senegal April 4–15, 2011 MODÉLISATION, SYSTÈMES NON LINÉAIRES ET APPLICATIONS	Kiev, Ukraine August 8–19, 2011 SINGULARITIES : ALGEBRA, GEOMETRY AND APPLICATIONS
Buenos Aires and Cordoba, Argentina August 1–12, 2011 ALGEBRAIC GEOMETRY AND APPLICATIONS	Buea, Cameroon May 1–14, 2011 REAL AND COMPLEX ANALYSIS WITH APPLICATIONS TO OTHER SCIENCES	Hanoi, Vietnam January 17–28, 2011 BRAIDS IN ALGEBRA, GEOMETRY AND TOPOLOGY
Sierras de Cordoba, Argentina May 16–27, 2011 NON COMMUTATIVE ALGEBRA AND LIE THEORY	Monastir, Tunisia May 9–19, 2011 CONTRÔLE ET STABILISATION DES ÉQUATIONS AUX DÉRIVÉES PARTIELLES	Bangkok, Thailand May 15–28, 2011 SPECTRAL TRIPLES AND THEIR APPLICATIONS
Bellville, South Africa June 6–17, 2011 MODELLING & SIMULATION IN POPULATION BIOLOGY	Kinshasa, Congo July 18–31, 2011 SYSTÈMES DYNAMIQUES DANS DES VARIÉTÉS ET APPLICATIONS	Yogyakarta, Indonesia July 18–29, 2011 NON-LINEAR COMPUTATIONAL GEOMETRY
Hammamet, Tunisia September 5–17, 2011 ANALYTICAL AND ALGEBRAIC TOOLS OF MODERN MULTIVARIATE ANALYSIS AND GRAPHICAL MODELS	Bandung, Indonesia August 1–12, 2011 GEOMETRIC REPRESENTATION THEORY	



CIMPAICPAM

Écoles de recherche

Research Schools 2011

INTERNATIONAL CENTER FOR PURE AND APPLIED MATHEMATICS (ICPAM) is an international organization that promotes Mathematics in developing countries. ICPAM is sponsored by UNESCO and supported by the Ministère de l'Enseignement Supérieur et de la Recherche (France), the University of Nice-Sophia Antipolis (France), the Ministerio de Ciencias e Innovación (Spain) and the Centre national de la recherche scientifique (France).

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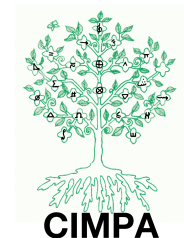
Mediterranean 2011

Contrôle et stabilisation des équations aux dérivées partielles

- CIMPA-UNESCO-MICINN-TUNISIA
- Monastir, Tunisia, May 9-19

Analytical and algebraic tools of modern multivariate analysis and graphical models

- CIMPA-UNESCO-MICINN-TUNISIA
- Hammamet, Tunisia, September 5-17



Sub-saharan Africa 2011

Modélisation, systèmes non linéaires et applications

- CIMPA-UNESCO-MICINN-SENEGAL
- Dakar, Senegal, April 5-15

Modeling and Simulation in Population Biology

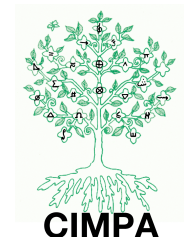
- CIMPA-UNESCO-MICINN-SOUTH AFRICA
- Bellville, South Africa, June 6-17

Systèmes Dynamiques dans des Variétés et Applications

- CIMPA-UNESCO-MICINN-CONGO
- Kinshasa, Congo, July 18-31

Real and complex analysis with applications to other sciences

- CIMPA-UNESCO-MICINN-CAMEROON
- Buea, Cameroon, May 1-14



South-east Asia 2011

Geometric representation theory

- CIMPA-ICTP-UNESCO-MICINN-INDONESIA
- Research school in common with ICTP
- Bandung, Indonesia, August 1-12

Spectral Triples and Their Applications

- CIMPA-UNESCO-MICINN-THAILAND
- Bangkok, Thailand, May 15-28

Non-linear Computational Geometry

- CIMPA-UNESCO-MICINN-INDONESIA
- Yogyakarta , Indonesia, July 18-29

Braids in Algebra, Geometry and Topology

- CIMPA-UNESCO-MICINN-VIETNAM
- Hanoi, Vietnam, January 17-28

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Latin America and Caribbean 2011

Geometric, algebraic and topological methods for quantum field theory

- CIMPA-UNESCO-MICINN-COLOMBIA
- Villa de Leyva, Colombia, July 4-22

Algebraic Geometry and Applications

- CIMPA-ICTP-UNESCO-MICINN-ARGENTINA
- Research school in common with ICTP
- Buenos Aires and Cordoba, Argentina, August 1-12

Noncommutative algebra and Lie theory

- CIMPA-UNESCO-MICINN-ARGENTINA
- Sierras de Cordoba, Argentina, May 16-27

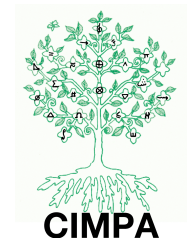
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Eastern Europe 2011

Singularities : algebra, geometry and applications

- CIMPA-UNESCO-MICINN-UKRAINE
- Kiev, Ukraine, August 8-19



Research schools numbers

180 CIMPA-ICPAM research schools in Pure and Applied Mathematics and Computer Science in 54 countries:

- 51 schools in Africa
- 50 schools in Asia
- 49 schools in Latin America and Caribbean
- 26 schools in the Middle-East
- 4 schools in Eastern Europe



Some complementary activities

AFRICA

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

LATIN AMERICA

- EMALCA

MIDDLE EAST

- MA3N (Mathematical Analysis & Application Arab Network)

SOUTH EAST ASIA

- Cambodia, Laos (regional master program)
- IMAMIS

