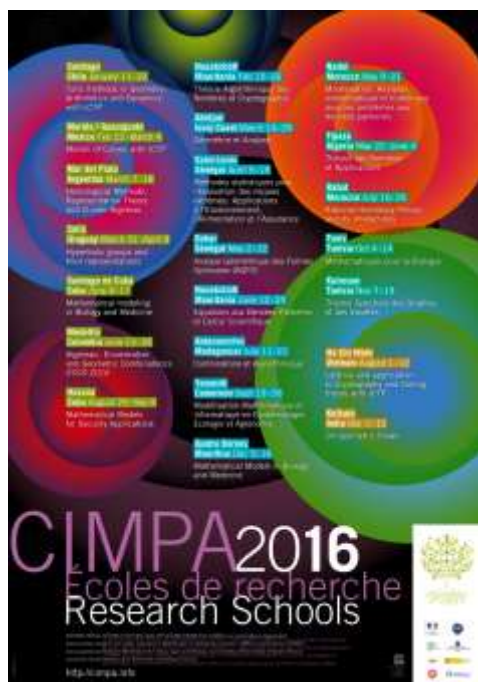


CIMPA synthesis for Steering Council 2015

CLAUDE CIBILS – DIRECTOR - DECEMBER 2015

MAIN POINTS TO BE DEVELOPED DURING THE STEERING COUNCIL MEETING



1. We maintain half of the energy and the support of CIMPA for **Africa**, according to Steering Council recommendation.
African Mathematical Schools (EMAs in French, Ecoles mathématiques africaines) are growing healthy; they are a fundamental tool of Africa and CIMPA.
 - At Cabo Verde we had fruitful exchanges with Leonard Tadjihoude and Sylvain Duquesne, also with Salio Touré, former President of UMA. Leonard is now in charge and Sylvain is providing a great help. Giulia Di Nunno is also member, I warmly thank all of them.
 - AIMS Senegal (and certainly other AIMS) will support EMAs. A tripartite agreement (Senegal, Ivory Coast and Brazil) is working well, under the auspices of CIMPA

2. South and East Asian Mathematical Schools (**SEAMS schools**) are now fundamental as well. Edy Baskoro (president of SEAMS, member of our Scientific Council and member of CIMPA) is making a crucial work, as well as Brigitte Lucquin and Christian Mauduit, members of my Management Team. I thank all of them warmly. There is an open call every year and decisions have been taken. A renewal of SEAMS will take place in Indonesia in 2016.
3. **EMALCA's** are consolidated and sustainable, they are the inspiring pattern. Rafael Labarca (member of CIMPA) is conducting the Committee, I also thank him warmly. We have permanent exchanges, as well as with Servet Martinez (President of UMALCA, member of CIMPA). A renewal of UMALCA will take place in Colombia in 2016.
4. **Four** fundamental lines emerge from above.
 - Close collaboration with mathematician unions as representatives of a mathematical community. We avoid working in a directive way with them.
 - An institutional frame, providing equal opportunity and new work for young mathematicians. We avoid to work through friendship or by immediate proximity.
 - Innovation filling a gap. We facilitate and help masters through the SFR program (in French “soutien à la formation à la recherché”).
 - Open calls, in accordance with decisions of the past General Assembly. This is ethical, sometimes harder to manage, and much more efficient in the long run.

CIMPA is now worldwide recognized for those points.

5. We have three principal tools, all of them are institutionalized with open calls:
 - [Research schools](#), clearly the most important,
 - [Schools in partnership for training in research](#), of lesser level and initiated locally: **EMALCA, EMA, SEAMS** and **WAMS** West Asia Mathematical Schools.
 - [Support for training in research](#) has been established following StC recommendations. A clear procedure has been worked out with our accountants. Invitation and a final letter by a “third party” are requested.
6. The specific action for master in **Cambodia** has also its open call. A global and complete project presented in continuity with previous work has been accepted by the Bureau, you can [read](#) it on the website.
7. Rosane Ushirobira has reintegrated for **communication**; the poster is wonderful as well as the newsletters, they are efficient presentations of CIMPA everywhere. My special thanks to her.
8. I'm happy to note that the integration of **Spain** is now complete in CIMPA. In my Management Team Mercedes Siles Molina is doing a great job as a transversal Scientific Officer, I thank her very warmly. Jorge Jimenez Urroz has developed the WAMS, West Asia Mathematical Schools and other work, thank you Jorge. I would like to underline the work of

Teresa Diez from the Ministry for her very efficient and fruitful relation, in particular concerning funding from Spain. We are looking forward, with a completely renewed CIMPA in less than one year. Thank you Teresa, as well as Antonio Campillo, we have done a lot of work together.

9. **Switzerland** with Felix Schlenck, Elisa Gorla (member of my Management Team) is perfectly integrated. I maintain a fluid relation with Benedikt Hauser. He will visit Nice on his request in a few weeks in order to have a complete picture of CIMPA with the authorities of the new University.
10. Several mathematicians from **Norway** are participating to Research Schools as well. The representatives of Norway at CIMPA are efficient and accurate. I underline that the support of Norway is always the first to arrive each year.
11. My very warm thanks to Ahmad El Soufi, in particular for the Mediterranean Ring but his work is larger, as for the others SO.
12. To all my **Management Team**, thank you for your enthusiasm, for discussions towards a more efficient CIMPA. Without all of you it would be impossible to conduct CIMPA.
13. Work with **CARMIN** and in particular with Cédric Villani is fruitful and have plenty of sense. This allows transversal exchanges, informal discussions and joint work.
14. Some members of the **GB** proposed their help and this has been important, they took the responsibility of several Research Schools, in particular Alain Damlamian, as well as Marc Aubry and Andrea Solotar, my very warm thanks to them. Jean-Marc Bardet has participated once to a not so easy RS in Africa, at that time I was sure that he was more experimented than me, thanks also to him. Tsou Sheung Tsun shared some days in a RS in Mexico with me once; this way she has been to see how it works, of course in a not so deprived country, thank you.
15. The work with the **SC** is now completely undertaken in a dynamic relation, this is an achievement.
16. **The small administrative team** (two secretaries, one part-time) is tremendously efficient in Nice, they have accompanied the evolution of CIMPA, in particular its Europeanization. Alfonso Perez, Information Technology manager at CIMPA is doing also a great job. My warm congratulations and thanks to the three of them.
17. **Severe security issues on CIMPA's web** site have been solved by Alfonso. Strong backups and an emergency procedure on independent servers have been settled at almost no cost.
18. We have signed a renewal of the agreement with **INRIA**
19. We have signed a renewal of the agreement with **Argentina**.

20. I met the Permanent Secretary of Académie des Science Hassan II of **Morocco**, with Yousef Ouknine (member of our SC). At this occasion a misunderstanding has been cleared up.
21. **More local support.** Mathematics is better recognized as an engine and a vector for development. CIMPA is better known. We are obtaining more local support for RS.
22. We have a close and effective work with **ICTP** and its director (mathematics) Fernando Villegas.
23. **IMU** answers positively to almost all our requests for financial support for each RS. I'm glad that Olga Organisers have some troubles sometimes due to the restriction for the use of IMU funding. It also supports Schools in Partnership for Training in Research (EMAs, EMALCAs, SEAMS and WAMS).
24. We are succeeding that **lecturers** do not stay just some days in a Research School. **Students** are more often required to make exercises and/or to attend all courses, in order to obtain a certificate by the organisers.
25. **No registration fees** at Research Schools or Schools in Partnership (except for people which can pay without problem). **No honorariums** for lecturers. We have to underline this permanently to authorities at local institutions. There is a side effect: in some countries no registration fees is equivalent to poor quality! Excellence should be expensive.
26. This is my last participation to a Steering Council meeting. Some years ago we have created this Council by a change of statutes, allowing this way a concentrated Governing Board on administrative aspects of CIMPA. Thank you a lot for your work and for your cooperation, in particular for positive and fruitful exchanges that I had with several members. Thank you!

CIMPA Synthesis document for the Steering Council
Research Schools end of 2014 and 2015
Claude Cibils, Director.

Each RS has two complete and short reports on line which are fundamental. I'm summarizing with some sentences. I encourage and I recommend reading the reports.

[Théorie des singularités en topologie, géométrie et feuilletages](#)

MEXIQUE Cuernavaca, 25 novembre - 5 décembre 2014

Very well organised. Some lecture series had a didactic character, as core courses. None dealt with too specialized themes. Time between the dead line and the holding of the school was too short.

[Graph labelings, graph decompositions and Hamiltonian cycles](#)

LAOS Vientiane, 8-19 décembre 2014

First CIMPA Research School in Laos, also the first important scientific meeting in mathematics. "Research Problem" sessions in small groups and under the guidance of the lecturers.

[Hamiltonian and Lagrangian Dynamics](#)

URUGUAY Salto, March 9-20 2015

Some young mathematicians were "fascinated" by the courses. Participation of several women, they made a special acknowledgement to CIMPA for this. Perfect work by the organizers.

[Nonlinear Partial Differential Equations arising from Geometry and Physics](#)

TUNISIA, Hammamet, March 20-29

Strong link with MIMS – Mediterranean Inst. for Math. Sciences. High quality courses in English. Organizers made a high quality work.

[Minimal surfaces, overdetermined problems and geometric analysis](#)

With ICTP. CHILE, Santiago, April 8-15

Exceptional scientific event. Joint with ICTP. Two main math institution involved in Chile: PUC (Pontificia Universidad Católica de Chile) and CMM (Center for Mathematical Modeling). Large participation of young mathematicians not from Chile (36).

[Differential Geometry and Non-Associative Algebras](#)

MOROCCO, Marrakech, April 13-24

Intense courses with several questions. A unique hotel for everybody, providing mathematical discussions at breakfasts. Two students from Cameroon. Networks have been initiated.

[Number Theory and Applications](#)

MOROCCO, Oujda, May 18-29

High quality participation from Morocco. Six young mathematicians from Sub-Saharan Africa. Very useful exercises and exchange sessions. Lecturers have stay the two weeks, some at least one week.

[Dynamical systems : Examples, billiards, and the 3-body problem](#)

SOUTH KOREA, Daejeon, May 25-June 3

Four young mathematicians (Iran, Korea, Singapour) very actively contributed to the exercise classes, motivating everybody. The level of the talks was increasing, starting quite low. Gratefulness of many

students, at the school and later by e-mail. Crucial participation of NIMS - National Institute for Mathematical Sciences.

[Transformation Groups and Dynamical Systems](#)

PERU, Lima, May 25-June 5

In continuity with doctoral courses organized by U. of Valladolid and Pontificia Universidad Católica del Perú from seven years. Video retransmission was very useful. Participation of students from all Peru. Links with authorities and a MOU with CONCYTEC is planned.

[II Latin American School of Algebraic Geometry and Applications](#)

BRAZIL, Cabo Frio, June 1-12

More than 100 participants, one half from Brazil. Everything in the same place enabling lot of informal work, exchanges and discussions. Very important participation from IMPA.

[Leavitt path algebras and graph \$C^*\$ -algebras](#)

TURKEY, Izmir, June 29-July 12

All lectures have been video-recorded. Good environment in Nesin Mathematics Village, somehow too isolated and with poor Internet. Interactions with lecturers.

[Random processes and optimal configurations in analysis](#)

ARGENTINA, Buenos Aires, July 6-17

A lot of efforts by the local organizers for having everything working. Difficulties with the Ministry from Argentina. Participants from all parts of Argentina.

[Summer School on Current Research in Finite Element Methods](#)

INDIA, Mumbai, July 6-17

Two previous training schools. Fast rhythm. Lab sessions using powerful software and enabling lecturers to monitor progress. Important participation from all India.

[Algebraic Representation Theory 2015](#)

SOUTH AFRICA, Muizenberg, July 19-31

At AIMS Muizenberg, with full support according to the MOU. Scientific and administrative organization was perfect. Level of courses adapted. Useful contacts towards EMAs.

[Mathematical Modeling and analysis of complex systems](#)

KENYA, Naivasha, July 20-31

In a safer place than the original one. Pre-school lecture thanks to a SFR. AWMA before the RS. Main officer from France renounced, and have been replaced. First RS in Kenya, a success. Enthusiasm of the local organizing committee.

[Stochastic Analysis and its Applications Mongolia 2015](#)

MONGOLIA, Ulaanbaatar, July 27-August 7

Around 90 participants, half of them women. The German Academic Exchange Service (DAAD) had a very important role and contribution. Many questions and discussions. Students reported they have learned a lot. Lectures prepared with a great attention.

[Arithmetic, Groups and Analysis: Cusco 2015](#)

With ICTP-PERU, Cusco, August 8-22

Great scientific success according to several echos. Administrative difficulties, in particular with the local University and hotels.

Tilings and Tessellations

IRAN, Isfahan, August 24-September 4

First RS in Iran since 2009. Important efforts from local organizers to facilitate interaction between participants; exercises sessions after each course, with the lecturers. Also lab sessions with SAGE. Young participants were very motivated. Remarkable work by the organizers.

New interactions of Combinatorics and Probability

BRAZIL, Sao Carlos, August 24-September

New subject, interesting for everyone. Heterogeneous audience, some courses were of too high level. Perfect organization. No common hotel nor common lunch (administrative constraints), a pity. A participant from Senegal.

Non-commutative Algebra

PANAMA, Coclé, October 19-28

Very dynamic RS, with two previous schools (one of them an EMALCA). Important participation from Panama, some courses were still difficult to follow. Interesting interaction between Latin-American participants. Perfect organization and several contacts with local authorities for this first RS in Panama.

Cantor-Salta 2015 : Dynamics on Cantor sets

ARGENTINA, Salta, November 2-13

Probabilistic Models in Epidemiology

SENEGAL, Ziguinchor, December 5-16