Rencontres des jeunes chercheurs africains en France :

Partenariats scientifiques, ressources, réseaux

Christophe Ritzenthaler

Director of CIMPA (International Center for Pure and Applied Mathematics)

CIMPA: International Center of Pure and Applied Mathematics

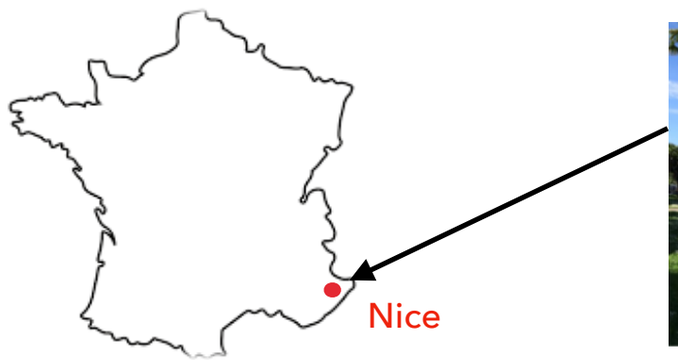
Mission: promote research in mathematics in developing countries

Founded in 1978

Unesco 2 center

Non profit French Association

www.cimpa.info



Campus of Université Côte d'Azur

Employees:

- Executive director
- Executive secretary
- Communication officer

Budget: ~700k€

~150 individual members and 28 institutional members

Governing board
(7 individual + 7 institutional)

Steering Council
(7 individuals + 15 institutional)

Scientific Council
(~12 members)

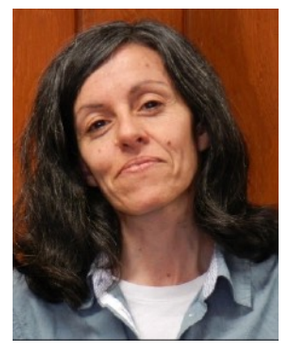
A strongly connected association…

Many partners

5 European countries inside the Governing Board and Steering Council

Join calls and actions with continental associations or institutes: UNESCO, African Mathematical Union, Unión Matemática de América Latina y el Caribe, Southeast Asian Mathematical Society, International Center for Theoretical Physics, Nesin Mathematics Village

Coordination with the Commission for Developing Countries of International Mathematical Union, European Mathematical Society, the African Institutes for Mathematical Science



with some specificities

- **Run by and with mathematicians:** our collaborators are colleagues and work as volunteers. We understand their needs.
- **Under private law:** more flexibility in the way we can spend our financial support
- a **long history** of actions which created trust and visibility
- an **international independent scientific council** which evaluates the applications
- **Proximity with the field** thanks to our scientific officers, experts in some regions in the world

Alp Bassa
Boğaziçi üniversitesi, TURKEY
WEST AND CENTRAL ASIA

Yacine Chitour
Université Paris-Saclay, FRANCE
NORTH AFRICA AND WEST ASIA

Sophie Dabo
Université de Lille, FRANCE
AFRICA

Lidia Fernandez
Universidad de Granada, SPAIN
ASIA

Fabrice Gamboa
Université Paul Sabatier, FRANCE
WEST ASIA AND LATIN AMERICA

Joan-C. Lario
Universitat Politècnica de Catalunya, SPAIN
LATIN AMERICA AND ASIA

Stéphanie Nivoche
Université Côte d'Azur, FRANCE
CENTRAL AND EAST ASIA

Vlady Ravelomanana
Université de Paris, FRANCE
AFRICA

Rosane Ushirobira
Inria, FRANCE
LATIN AMERICA

Jorge Mozo Fernandez
Universidad de Valladolid, SPAIN
WEST ASIA AND LATIN AMERICA

CIMPA Schools

- 340 schools in 62 countries
- ~10 professors/school
- Local and State member coordinators

CIMPA Courses

- ~30 courses every year
- 1 professor for ~30 participants

Schools in Partnership

- Support ~20 schools/year
- Collaboration with 4 continental organizations

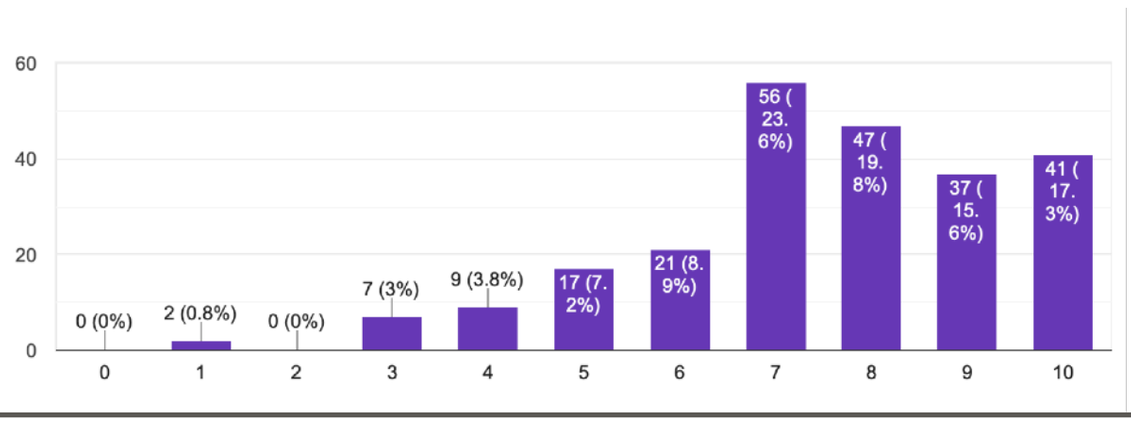
CIMPA - ICTP Research in Pairs

CIMPA Fellowships

- ~12 grants for advanced researchers for collaboration in Europe
- ~10 grants for young researchers for thematic semesters in Europe

Useful events for our participants

On a scale from 0 (I didn't learn anything, didn't meet anybody) to 10 (it helped me do/finish a PhD, find a post-doc, write an article…), how do you evaluate the importance of this school in your mathematical education?



Useful events for our partners

- **Increase their international visibility;**
- **Confort their position** in their institution;
- **Explore and deepen collaborations** with colleagues from developed countries and from the region;
- **Create long-term institutional projects**

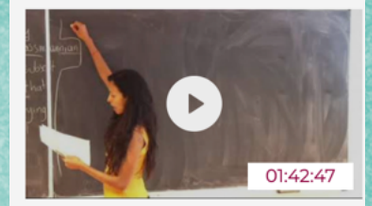
`Without this fellowship, I wouldn't be able to come several weeks to Europe… It is really an opportunity with capital O for me'

Watch their interviews on our YouTube channel.

CIMPA MATH /INTERVIEWS

Watch the mini-courses:

CIMPA MATH /MINI-COURSES



PUBLIÉE LE 5 JUILLET 2022

Lattice path matroids, polytopes and permutations (2/4)

De Benedetti Velasquez Carolina

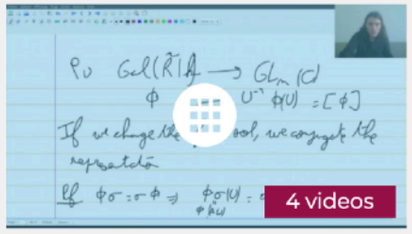
Rati Ludhani (participant CIMPA school Turkey):`we have started working on a problem and we are confident enough that we will make good progress and publish our work.'

Klaudia Nderca (participant CIMPA school Albania): `I really meet great professors from all around the world,…students, doctors… and who knows, one day they will be my colleagues too.'

GROWING LIBRARY OF LECTURES ON carmin.tv

LES COLLECTIONS DE CIMPA

VOIR +



PUBLIÉE LE 12 AVRIL 2021

Difference Galois theory

PUBLIÉE LE 12 AVRIL 2021

Diophantine Geometry

PUBLIÉE LE 12 AVRIL 2021

Introduction to Transcendental Number Theory

PUBLIÉE LE 29 MARS 2021

Geometric and Numerical Methods in Optimal Control I

PUBLIÉE LE 1 MARS 2021

Complex Analysis

PUBLIÉE LE 21 FÉVRIER 2021

Complex abelian varieties

PUBLIÉE LE 21 FÉVRIER 2021

Ideal Class Monoid and Computing Abelian Varieties over Finite Fields

PUBLIÉE LE 15 FÉVRIER 2021

Geometry and arithmetic of curves of low genus

PUBLIÉE LE 10 DÉCEMBRE 2020

Introduction à la méthode des éléments finis pour les équations elliptiques

PUBLIÉE LE 10 DÉCEMBRE 2020

Introduction aux méthodes volumes finis en 1D

COLLECTION Diophantine Geometry

In this course we present a short introduction to Diophantine Geometry. The main object of study are heights: we study their properties, their constructions and their applications. We start by introducing absolute values and valuations to define heights on projective spaces and later on on varieties, more precisely on abelian varieties via the Weil heights machinery. We revisite Mordell-Weil theorem on the group of rational points on abelian varieties and Falting's theorem on the finitness of rational points on curves of genus greater or equal than 2. We finish the course by discussing some open problems on Diophantine Geometry, as the abc conjecture.

TOUTES LES VIDÉOS DE LA COLLECTION (6)

PUBLIÉE LE 12 AVRIL 2021

Absolute Values on Number Fields and the Product Formula (part 1/6)

De Elisa Lorenzo García

PUBLIÉE LE 12 AVRIL 2021

Heights in Projective Spaces (part 2/6)

De Elisa Lorenzo García

PUBLIÉE LE 12 AVRIL 2021

Some Results on the Geometry of Curves and Abelian Varieties (part 3/6)

De Elisa Lorenzo García

PUBLIÉE LE 12 AVRIL 2021

The Néron-Tate height on Abelian Varieties (part 4/6)

De Elisa Lorenzo García

PUBLIÉE LE 12 AVRIL 2021

The (weak) Mordell-Weil Theorem (part 5/6)

De Elisa Lorenzo García