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March 6, 2014

APPLICATION OF GABON FOR IMU ASSOCIATE MEMBERSHIP

Gabon is a developing country of sub-saharan Africa, for which the access of science, technology and mathematics stands as a national priority, in accordance with the overall goal which is to build an emerging society.

On behalf of Gabon Mathematical Society (SMG), I, Pr. Philibert Nang, President of the SMG, I would like to apply for the adhesion of Gabon as an associate member of IMU. We really hope that this application will be favorably dealt with, so that it can break the isolation of gabonese researchers in mathematics.

Would you please find below the

Description of the state of mathematics in Gabon.

There are three public universities in Gabon. The first one was founded in 1970 in Libreville, the main town of the country. It was originally multidisciplinary, with a faculty of sciences and a department of mathematics. In 1986 it was reformed, and the faculty of science was delocated in another city (Franceville) for the creation of the second university (University of Sciences and technics of Masuku: USTM) the only university of sciences. The last one is the university of medical sciences.

The mathematics is taught intensively, from undergraduate level to graduate level, in the university of Masuku (USTM) and at École Normale Supérieure of Libreville (ENS). The faculty of sciences of USTM offers a postgraduate program in mathematics. In Gabon's universities and institutes, there are around 25 teachers (2 females)

in mathematics, and 8 of them are active researchers.

The research in mathematics happens in a few elite institutions as follows:

- In ENS, there is a research laboratory in mathematics, in which are organised, since 2010, a bi-weekly high level seminar, and two workgroups on analysis and algebraic analysis. The first workgroup is devoted to the study of analytic pseudodifferential operators, and the second one on \mathcal{D} -module theory and perverse sheaves with applications to the theory of singularities.

- In the faculty of sciences of USTM, people deal with mathematical physics field, probability and statistics. There is a group working on asymptotic theories of multivariate statistical. And another one on the study of sticky particles models and scalar conservation laws.

- In IAI (Institut Africain d'Informatique), there is a laboratory of applied mathematics and computer sciences working on numerical non linear partial differential equations.

Please find below further details about mathematics education and research in Gabon.

- Mathematical Society of Gabon: 1

- Société Mathématique du Gabon
- Created in 2013
- President founder: Pr Philibert Nang
- number of members: 25

- Number of Universities and Institutes where mathematics is taught: 5

- Number of PhD Students in mathematics in the postgraduate program of mathematics in the university of Gabon: 4

- Institutions in which research mathematics happens: 4

- University of Masuku (USTM)
 - Ecole Normale Supérieure of Libreville (ENS)
 - Institut Africain d'Informatique (IAI)
 - École Polytechnique de Masuku (EPM)
- **Mathematics leaders in the university of Gabon:**
- Guy Martial Nkiet, Full Professor, University of Masuku (USTM)
 - Philibert Nang, Professor, 2011 ICTP Ramanujan prize Laureate, Ecole Normale Supérieure (ENS)

Estimated number of mathematical research publications (in well known journals) produced by researchers working in Gabon: 60.

Number of research publications per year produced recently:

- 2012: 5
- 2012: 6
- 2011: 2
- 2010: 3
- 2009: 3
- 2008: 6

As it is well known, in the sub-saharan Africa, there are a lot of impediments to students and researchers to obtaining the kind of education and research they need. For instance, the lack of books, of financial support, of information and technology tools. All of this holds us back from fully expressing our capabilities. We hope that the acceptance of our application for IMU associate membership will be a great opportunity for us to interact with mathematicians of the world.

Yours sincerely,

Philibert Nang