

Executive Committee,
International Mathematical Union.

Dear Colleagues,

This letter is written in representation of the Colombian Mathematical Society (Sociedad Colombiana de Matemáticas), to postulate Colombia as a full member of the IMU.

Colombia has a long tradition in mathematics and we believe that our applying for membership to the IMU could have been done long time ago. The following is a briefing of some of the items which samples the level of research and activities in mathematics which have been done in Colombia the last couple of years.

Research at Colombian Universities.

More than 400 articles and book chapters have been published by mathematicians working at Colombian universities in books and journals indexed by ISSN or ISBN during the last five years. Some are well known top journals in pure and applied mathematics and mathematical education. A sample of such journals include

- Advances in Mathematics
- Annals of Pure and Applied Logic
- Communications in Mathematical Physics
- Comptes Rendus de L'Academie des Sciences
- Illinois Journal of Mathematics
- Journal of Algebra
- Journal of Differential Equations
- Journal of Number Theory
- Journal of Symbolic Logic
- Nonlinear Analysis
- Proceedings of the AMS
- The Quarterly Journal of Mathematics
- SIAM Journal of Optimization
- Tohoku Mathematical Journal
- Topology and Its Applications.

Mathematical activity resulting in regular publication of articles has been carried out in the following Colombian institutions:

Fundación Universidad del Norte
Universidad Antonio Nariño
Universidad de Antioquia
Universidad del Cauca
Universidad de Córdoba
Universidad de Los Andes
Universidad del Valle
Universidad EAFIT

Universidad Industrial de Santander
Universidad Nacional de Colombia, Bogotá
Universidad Nacional de Colombia, Medellín
Universidad Tecnológica de Pereira

This list might not be complete: we could verify that colleagues from Universidad de Cartagena, Universidad del Quindío, Universidad Javeriana de Bogotá, Universidad Militar Nueva Granada and Universidad Sergio Arboleda have also published articles in indexed international journals of mathematics.

We feel that this is a very significant list of universities that represent many different regions of Colombia. That all the research is being done at universities brings up the fact that Colombia lacks a research institute of mathematics. There are quite a few initiatives being done to start one. We hope that in to be able to open our first institute of mathematical research in the near future.

Training of mathematical researchers.

Colombia has six masters programs in pure and applied mathematics, one in applied mathematics and two in mathematical education. Between 20 and 40 people graduate every year with masters in pure and applied mathematics.

There are five PhD programs in mathematics in Colombia. Three of these programs (Universidad de los Andes, Universidad de Antioquia and Universidad del Valle) are quite new and have not had any graduates yet. The other two PhD programs (Universidad Nacional de Colombia, Bogotá and Universidad Nacional de Colombia, Medellín) have granted five doctoral degrees over the last five years.

In fact, the national graduate studies system has been growing and improving, with initiatives towards achieving this coming from both the universities and the Colombian government. So we have good reasons to hope to be much stronger in this department in the upcoming years.

Sample of activities in mathematics.

The last couple of years have been quite active in mathematical activities throughout Colombia. Just to give a sample, we will concentrate in last year.

From August 2006 to August 2007, there were 13 nationwide conferences and workshops in mathematics; in some of them top international researchers were invited as speakers and the meetings were attended by people both from Colombia and from many other countries.

This included the XVI Congreso Nacional de Matemáticas which was attended by more than 1000 people and the workshop Geometry and Topological Methods for Quantum Field Theory which has been realized biannually over the past ten years.

Colombia also was host to the XVII Coloquio Latinoamericano de Álgebra, the VII Americas School in Differential Equations and Nonlinear Analysis, the Escuela Cimpa-

Unesco-Realma-Colombia, Emalca 2006 and the International Conference on Mathematical Problems for Kinetic Equations and Applications.

All this, plus the seminars and colloquiums organized by each particular university, makes Colombia quite active both in the organization of nationwide mathematical meetings and as a host of international mathematical meetings.

A special note should be made about events related to education in mathematics. For the past decades, the Olimpiadas Matemáticas de Colombia organization has done a very good job organizing events, which are always meant to help selecting the representatives to the different competitions but which have helped improve the education in mathematics in Colombia. This last years, however, the government joined many institutions which have been working on education in mathematics; 2007 was referred to as “Año de las competencias en matemáticas” by the ministry of education and many different meetings and events were organized with the government’s help. Every year Colombian institutions organize between two and four nationwide meetings about education in mathematics at different levels. This year we have already had three such meetings and two more will be held in the next months.

Based on this we hope the Executive Committee will recommend, and the Union will approve Colombia as an active member if the IMU.

Thank you very much for your time and help throughout the years.

Sincerely,

Alf Onshuus
Sociedad Colombiana de Matemáticas.