

Your Majesty,
Senor Ruiz Gallardón,
Senora Cabrera,
Senora Aguirre,
Professor Manuel de León,
Distinguished guests,
Ladies and gentlemen,

Bienvenidos al ICM dos mil seis! Welcome to ICM 2006, the 25th International Congress of Mathematicians, and the first ICM to be held in Spain. We offer our heartfelt thanks to the Spanish nation, so rich in history and culture, for its invitation to Madrid.

We greatly appreciate that His Majesty King Juan Carlos is honouring mathematics by his presence here today.

While celebrating this feast of mathematics, with the many talking-points that it will provide, it is worth reflecting on the ways in which our community functions.

Mathematics is a profession of high standards and integrity. We freely discuss our work with others without fear of it being stolen, and research is communicated openly prior to formal publication. Editorial procedures are fair and proper, and work gains its reputation through merit and not by how it is promoted. These are the norms operated by the vast majority of mathematicians. The exceptions are rare, and they are noticed.

Mathematics has a strong record of service, freely given. We see this in the time and care spent in the refereeing of papers and other forms of peer review. We see it in the running of mathematical societies and journals, in the provision of free mathematical software and teaching resources, and in the various projects world-wide to improve electronic access to the mathematical literature, old and new. We see it in the nurturing of students beyond the call of duty.

This service is exemplified by the tremendous efforts made over the last four years by Spanish mathematicians to bring this Congress to fruition. I propose that we formally record our appreciation of their splendid work through electing by acclamation the President of the Local Organizing Committee, Manuel de León, as President of this International Congress.

The Scientific Program of the Congress was in the capable hands of an international Program Committee (i), chaired by Noga Alon. The International Mathematical Union is most grateful to the members of this committee, and to the many other mathematicians who served on the sectional panels, for their work in putting together a fine program of lectures.

Mathematicians do not own mathematics. But among the many millions who use mathematics daily they are distinguished by their constant search for deeper understanding based on an appreciation of beauty, simplicity, structure and the power of generalization. Yet the lesson of past centuries is that these vital elements in the development of mathematics require constant invigoration by new questions that come from the world about us.

There is no object, large or small, and almost no aspect of human existence, to which mathematics cannot contribute understanding. In particular, the great questions facing the planet, such as how to model and manage the climate, pose profound mathematical challenges. The need for an understanding of mathematics, of the mathematical way of thinking, and of the role mathematics can play in society, is no longer confined to scientists and engineers, but is increasingly important for those who work in industry, finance, the

social sciences, and in many other walks of life, and thus also for *all* involved in education, for the media, opinion-formers and politicians. As subjects become better understood, they become more mathematical. Thus in the life sciences, for example, we see a rapid increase in the use of mathematical models, a trend that promises to profoundly influence medicine in the future.

In contemplating the importance of mathematics *for* the world, we see the importance of supporting the development of mathematics *throughout* the world. Mathematical talent does not respect geographical boundaries, but the opportunities, working conditions and tradition necessary for such talent to flourish depend heavily on geography, economic conditions and politics. Each country and region has its own needs for science and mathematics, its own problems as regards its mathematical development.

It is for these reasons that the IMU has made a special effort over the last four years to increase its support for mathematicians in developing countries. It has established an office for developing countries at the International Centre for Theoretical Physics in Trieste, and has cooperated with ICTP and the Abel Fund in the founding of the Ramanujan Prize for young mathematicians working in developing countries. At the IMU General Assembly held in Santiago de Compostela last weekend, a new class of Associate Membership was created to encourage more countries to join the Union. The IMU has augmented its developing countries programmes, particularly in Africa, helped by generous support from the sponsors that you can see listed (ii). Other sponsors (iii), including those of the ICM itself, have made it possible for some 400 mathematicians from developing and economically disadvantaged countries, particularly younger researchers, to attend this Congress.

Despite these initiatives, a dramatic increase in both funding and scientific interchange is required to address the global imbalances in mathematical education and research. In sharing mathematical knowledge and experience with those who work around the world, it is the whole mathematical community that benefits, and we make our own contribution to peace and stability through the binding together of peoples by a common language independent of politics, religion and culture.

I wish you all a rewarding and exciting Congress.

(i) ICM 2006 Program Committee

Noga Alon (Israel, Chair)
Douglas Arnold (USA)
Joaquim Bruna (Spain)
Kenji Fukaya (Japan)
Nigel Hitchin (UK)
Vaughan Jones (USA)
Pierre-Louis Lions (France)
Gregory Margulis (USA)
Richard Taylor (USA)
S.R. Srinivasa Varadhan (USA)
Claire Voisin (France)
Enrique Zuazua (Spain)

(ii) Grants to IMU for Developing Countries

- Annual grant from the Niels Henrik Abel Memorial Fund

- Nuffield Foundation and Leverhulme Trust (linked grants to support mathematics in sub-Saharan Africa, in conjunction with the London Mathematical Society and the African Mathematics Millennium Science Initiative)
- Packard Foundation
- Mellon Foundation
- American Mathematical Society
- London Mathematical Society

(iii) Contributors supporting the attendance of developing country mathematicians at ICM 2006

- ICM sponsors
- American Mathematical Society
- Mathematical Society of Japan
- USA Committee for Mathematics
- London Mathematical Society
- Het Wiskundig Genootschap Netherlands
- Italian Mathematical Union (UMI)
- German Mathematical Society (DMV)
- European Mathematical Society