Address of Friedrich Hirzebruch

President of the European Mathematical Society

Monsieur le Ministre,
Lieber Herr Cartan,
Ladies and Gentlemen,

As President of the European Mathematical Society, it gives me great pleasure to welcome you on behalf of the Society, its Council and its Executive Committee to this first European Congress organized under the auspices of the Society. We are fortunate to meet here in these superb and historic surroundings, reminding us of the second International Congress of Mathematicians which was held here in 1900 when David Hilbert formulated his famous list of problems. France has always been and is today one of the leading nations for Mathematics in the world and Paris is an outstanding center of mathematical research. In this wonderful atmosphere we look forward to participating in and enjoying a varied and stimulating programme of events.

At this time it is perhaps appropriate to recall the origins of our Society and of the Congress. As many will know, the European Mathematical Society, after much preparatory work by Sir Michael Atiyah, was founded in Poland in October 1990 by some thirty mathematical societies from all parts of Europe, both East and West. Our Society aims to promote the development of mathematics in the countries of Europe, concentrating on activities transcending national frontiers. In the European context the Society promotes mathematical research, assists and advises on problems of mathematical education, concerns itself with the broader relation of mathematics to Society, fosters the interaction between mathematicians of different countries, establishes a sense of identity amongst European mathematicians and represents the mathematical community in supra-national institutions. The Society has corporate and individual members. In the long run, the role of the corporate members should decrease, but the role of the individual members should increase. I am happy to report that, at this moment, we have approximately eleven hundred individual members. I congratulate the French Mathematical Societies on having persuaded so many of their members to join the European Mathematical Society, thereby setting an excellent example for other corporate members. Every mathematician present here should help me to fulfill my goal to bring up the individual membership to 3000 during my presidency. Please, join today or tomorrow. But, of course, the corporate members right now give us the basic strength and it is also gratifying to report that the Council accepted additional corporate members into the Society at its meeting here in Paris. In the spirit of meaningful communication and collaboration amongst all
members of the Society, we are pleased that a quarterly newsletter has already been successfully launched.

After these brief remarks on the European Mathematical Society, I want to speak on the origins of this first European Congress. Long before the foundation of the Society, Professor Max Karoubi and a group of mathematicians around him developed the idea of this congress, its novel structure consisting of mathematical lectures (plenary and parallel, all meant for a large mathematical audience, not giving the latest lemma of one’s own research, but a survey of the field), and, in addition to this more traditional part of the programme the new feature of Round Tables. All mathematicians know how difficult it is to explain the relevance of our current research to non-mathematicians. For us a theorem is relevant if it is deep and interesting, which means new insight, perhaps a solution of an old problem, perhaps unexpected relations to other fields of mathematics. Mathematics is part of our culture reaching back six thousand years. It is an art worth of support independently of applications, but it is also the basis for the natural sciences, technology and computer science. In this context I would like to mention the Round Tables “Mathematics and Economics”; “Mathematics and Chemistry”; “Mathematics and Industry”; “Mathematics, Biology and Medicine”. The Round Tables will also deal with typically European issues. Thanks are due to the founder of the Congress, Max Karoubi, for giving the Congress this twofold nature and to him and others for negotiating with the European Community and French ministries for the necessary support. We have to thank here these institutions for their generous support. Other donors, of whom there are many, and to whom thanks are due, are listed explicitly in the Congress documents you all have, and will be listed in the Proceedings of the Congress.

At its inception in Poland in 1990, the newly-formed European Mathematical Society took its first important decision. Acting on a proposal of Max Karoubi, whose imagination and industry was fully recognized, the planned Paris Congress was put under the auspices of the Society. It was agreed that there should be, every four years, a European Mathematical Congress and that the Paris Congress should be the first one. Some of the Round Tables of the Paris Congress were put into close cooperation with corresponding committees of the Society. The example set by this first Congress will be of fundamental importance for all succeeding ones. We owe considerable thanks to the many devoted members of the two French Societies, the Société Mathématique de France and the Société de Mathématiques Appliquées et Industrielles, who have worked tirelessly to ensure the success of this venture. In particular, we acknowledge the work of Professors Fulbert Mignot and François Murat, Chairman and Treasurer of the Organizing Committee, and of the members of this Committee which had to overcome unexpected difficulties. Indeed, they took over the task under complicated circumstances and have worked energetically to achieve
the obvious success that we can see around us. To the Scientific Committee under Professor Hans Föllmer we owe thanks for the excellence of the programme and to Professor Bernard Prüm we owe thanks for coordinating the Round Tables, the new feature of the Congress to which we look forward with great anticipation. Last, but not least, we thank Professor Henri Cartan and his Steering Committee which had to consider basic issues during the preparation of the Congress.

Henri Cartan has been a supporter of European cooperation for a very long time. Already in 1946 he went to Germany to re-establish scientific ties. He was a good friend of my late teacher Heinrich Behnke, the father of the school of Complex Analysis in Münster. Around 1960, more than thirty years ago, Henri Cartan chaired a committee which prepared a European student's record, the “Livret Européen de l'Étudiant”. This booklet contained a syllabus for basic courses designed to be used as a reference. Professors could give attestations and write them into the booklet. They were intended for the information of other teachers in other universities to make it easier for the student to move from one country to another. Unfortunately, the booklet was not used very much. We shall have a round table “Degrees harmonization and student exchange programmes” which may take advantage of this old idea. From the German side my teacher Heinrich Behnke, Emil Artin and myself were members of Henri Cartan’s committee.

At the beginning of my speech I mentioned that the European Mathematical Society should represent the mathematical community in supranational institutions. Indeed, we established relations to the European Community and to the European Science Foundation and we have a committee for this purpose under the Chairmanship of Professor Alessandro Figà-Talamanca, Vice-President of the European Mathematical Society. We are trying, for example, to spread information about the new programme “Human Capital and Mobility” of the European Community. I hope that mathematicians from many countries will apply to the European Community for participation in this programme. The programme has the following activities: Research training fellowships; scientific networks; Euroconferences. The research training fellowships are intended preliminary for the benefit of young European researchers at postdoctoral level. Unfortunately the programme is limited to countries which are members of the European Community. Other countries may be associated, but will not benefit financially. This leads me to point out the special problems concerning Eastern European countries. During the many years leading up to the founding of the European Mathematical Society it was envisaged that there would be a special office in Eastern Europe to help mathematicians in Eastern European countries to get permission to travel from East to West. This is not necessary anymore; walls and iron curtains have disappeared. There is now, however, the curtain of finance. For example, transportation
between Moscow and Paris costs the equivalent of the salary of a mathematician for many months. Many people from Eastern European countries who had planned to attend this Congress were prevented by this financial wall. Of course, the fellowships which the Organizing Committee could provide were very helpful, but not sufficient. We must try to overcome this financial wall. We can do this by establishing programmes in Western European countries, programmes for short visits, for longer research stays of Eastern European mathematicians -for example, for several months, every year, for five years. I know that some countries have such programmes or plan to have them. A week ago the Volkswagen foundation in Germany accepted a proposal for such a programme, to give an example. The support should include travel money, at least for several years to come, in contrast to the prevailing system that the sending country pays for the travel. But activity of this kind must also be carried out at the European Community level. I am very glad that such a European Community programme has been initiated, but, unfortunately, it excludes the Republics of the former Soviet Union, except the Baltic States. I understand, however, from discussions with some of the officials of the European Community that an additional programme for these Republics is on the way. In any case in the years to come our efforts have to be in this direction. We have to ensure that the financial wall between us disappears. The West gains already and will gain from the high standing of Mathematics in Russia and other countries in Eastern Europe.

Young mathematicians represent the future of our science. There are ten prizes offered by the Mairie de Paris for the encouragement of young people. We thank Monsieur Jacques Chirac, Maire de Paris, and hope that this example will be followed by other cities hosting the European Congress in the future. Many thanks go to the Prize Committee for its work in selecting ten winners out of a large number of very worthy candidates. Congratulations to the winners! And many thanks again to Monsieur Chirac who will present the prizes next Thursday.

It is a very special pleasure for me to announce the place of the second European Congress of Mathematics. The council of the Society decided yesterday to accept an invitation of the Janos Bolyai Mathematical Society of Hungary to have the next Congress in Budapest in 1996.

I would like to close my address by saying that I am very honoured to have been President of the European Mathematical Society since its inception and that I am very pleased in this role to have had the opportunity to address you on this auspicious occasion. It only remains for me to thank you, Monsieur le Ministre and honoured guests, for the much appreciated interest you have shown by your presence here at the opening, and to assure you that this Congress will be fully memorable and worthy of the Country and City in which it has the good fortune to take place.

Thank you all very much.