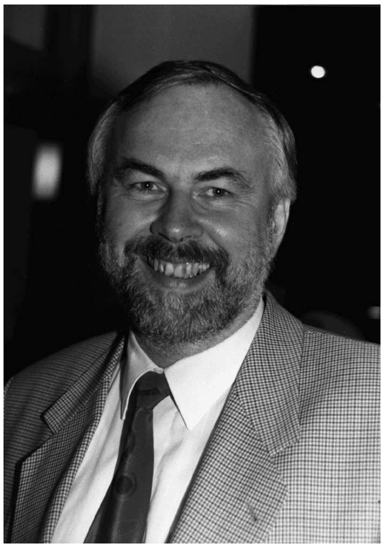
Organization of the Congress

Martin Grötschel
President of the ICM'98



In 1992 the German Mathematical Society (DMV) invited the International Mathematical Union (IMU) to hold the 1998 International Congress of Mathematicians in Berlin. The invitation was accepted by the 1994 General Assembly of the IMU in Luzern, the decision announced at the 1994 Congress in Zürich.

In January 1995 the Council (Präsidium) of the DMV and the representatives of the mathematical institutions in Berlin appointed the Board of Directors of the ICM'98 Organizing Committee (Martin Grötschel (TU and ZIB Berlin), President; Friedrich Hirzebruch (MPI Bonn), Honorary President; Martin Aigner (FU Berlin), Vice President; Jürgen Sprekels (HU and WIAS Berlin), Treasurer; Jörg Winkler (TU Berlin), Secretary) and also founded the *Verein zur Durchführung des International Congress of Mathematicians 1998 in Berlin* (VICM) to form a legal umbrella for the organization. In the course of the preparations, the Board of Directors asked many colleagues to join the organizing team. A list of its members can be found on the next pages.

Initial financial support came from the *Bundesministerium für Bildung, Wissenschaft, Forschung und Technologie* and from the *Senat von Berlin*. Without the substantial backing from these two institutions an application would have been impossible. Other public and academic bodies, private corporations and foundations, individuals and mathematical institutes supported the Congress significantly as well. A list of donors can be found in this volume. The registration fee was DM 450 for early and DM 600 for late registration, there was no fee for accompanying persons. The registration fees accounted for about one third of the total budget.

The scientific program of the Congress was in the hands of a Program Committee appointed by the IMU. Its members were Phillip Griffiths (Chairman), Luis Caffarelli, Ingrid Daubechies, Gerd Faltings, Hans Föllmer, Michio Jimbo, John Milnor, Sergei Novikov, and Jacques Tits. The committee divided the program of the Congress into 19 sections and appointed, for each section, a panel to nominate speakers. In early summer of 1997 the Program Committee selected 21 mathematicians to give one-hour plenary addresses and 169 colleagues to present 45-minute invited lectures. Five invited lecturers cancelled their talks at short notice due to personal reasons. Two of them, however, submitted written versions of their lectures to these Proceedings.

The Fields Medal Committee consisted of Yuri Manin (Chairman), John Ball, John Coates, J. J. Duistermaat, Michael Freedman, Jürg Fröhlich, Robert MacPherson, Kyoji Saito, and Steve Smale. The members of the Nevanlinna Prize Committee were David Mumford (Chairman), Bjorn Engquist, Tom Leighton, and Alexander Razborov. Both committees arrived at their decisions in spring 1998.

The Organizing Committee was responsible for all other activities of the Congress. Der-Congress handled accommodation, registration and related arrangements as the official travel agent of the Organizing Committee.

The first day of the Congress, including the opening ceremony, took place at the International Congress Center (ICC) of Berlin. During the opening ceremony, attended by about 3,000 persons, the Fields Medals and the Nevanlinna Prize were awarded. Moreover, Andrew Wiles received an IMU silver plaque in recognition of his proof of "Fermat's Last Theorem". The opening ceremony was transmitted worldwide in the Internet via MBone. In the afternoon of August 18, the work of the Fields Medalists and the Nevanlinna Prize winner was presented in five lectures. The manuscripts of these lectures can be found in this volume. Jürgen Moser concluded the first day with a plenary lecture.

All further sessions of the Congress took place on the campus of the Technische Universität Berlin. The plenary lectures were held in morning sessions in the Audimax of the TU Berlin. They were transmitted via closed-circuit television to another large lecture hall. The 45-minute invited lectures were given in six parallel sessions from 2 pm to 6 pm each afternoon, from August 19 to 26, except for Sunday, August 23, which was kept free for excursions etc. The last day of the Congress, August 27, consisted of four plenary addresses and the closing ceremony.

In addition to the invited and plenary lectures, 1,098 short 15-minute contributions and 236 poster presentations were given. Moreover, 235 ad-hoc talks of 15 minutes length were scheduled during the Congress. Thus, ICM'98 had a total of 1569 contributed presentations.

The organization of the Congress was, to a large extent, based on electronic communication. Already in 1994, a World Wide Web Server on the International Congress was set up at the Konrad-Zuse-Zentrum in Berlin. This server was continuously extended to contain up-to-date material so that every mathematician interested in ICM'98 could look up most recent information. In addition to this, circular letters were e-mailed to all those who preregistered for the Congress electronically. These circular letters complemented the printed First and Second Announcements that were mailed out in August 1997 and January 1998, respectively, to thousands of mathematicians worldwide.

The Organizing Committee also offered the possibility of electronic registration. Two thirds of the ICM'98 members took advantage of this facility; 95% of the abstracts of the invited and contributed presentations were submitted electronically. Moreover, all but one of the plenary and invited speakers submitted their paper for the proceedings volume electronically. This made it possible to produce Volumes II and III before the Congress, to make them available in the Internet, and to deliver them to the participants in printed form at registration in Berlin.

In all, 3,346 mathematicians from 98 countries participated in the Congress together with an estimated number of 800 accompanying persons; 31 exhibitors were present.

The Organizing Committee made significant efforts, together with the International Mathematical Union, to give financial support for participants from developing countries and Eastern Europe. A fund of more than DM 900,000 made it possible to sponsor the attendance of approximately 450 mathematicians. About 510 colleagues were invited, around 60 were unfortunately unable to attend; 93 young and 37 mature colleagues from developing countries received grants from the IMU and the local organization, 305 persons from the support program of the local Organizing Committee for mathematicians from Eastern Europe. Special grants from mathematical institutions and other support programs complemented these efforts.

The social events included a buffet lunch after the opening ceremony, an opera performance of the Magic Flute in the Deutsche Oper on August 23, and an ICM party on August 26. To convey some of the many facets of Berlin to the ICM'98 participants, and in particular to accompanying persons, many Berlin mathematicians, their friends and spouses offered informal tours, so called footloose tours, to points of special interest in Berlin. About 1,200 ICM'98 members and accompanying persons participated in these tours.

In accordance with the Program Committee and the IMU, the Organizing Committee opened a Section of Special Activities to cover topics of mathematical relevance that would not fit elsewhere in the official scientific program. These special activities included an afternoon session on electronic publishing with three talks and a panel discussion on "The Future of Electronic Communication, Information, and Publishing"; presentations of mathematical software on three afternoons; several special activities related to women in mathematics including the Emmy Noether Lecture given by Cathleen Synge Morawetz, and a panel discussion "Events and Policies: Effects on Women in Mathematics"; an afternoon on "Berlin as Centre of Mathematical Activity" (this workshop was suggested by the International Commission on the History of Mathematics); a roundtable discussion on "International Comparison of Mathematical Studies, University Degrees, and Professional Perspectives".

The exhibition "Terror and Exile" honored the memory of 53 Berlin mathematicians who suffered under the Nazi terror; this topic was also addressed in a special session "Mathematics in the Third Reich and Racial and Political Persecution".

Other events enhanced the scope of the ICM'98 activities. The special evening lecture of Andrew Wiles on "Twenty Years of Number Theory" on August 19 attracted an audience of about 2,300. Olli Lehto's book on the International Mathematical Union was presented and an exhibition of mathematical cartoons was shown at the TU Mathematics Library.

A major attempt to reach out to the non-mathematical public during the Congress were the activities in the Urania, an institution with a long tradition in the popularization of science. These included 11 lectures on mathematics for a general audience, the VideoMath Festival in which the VideoMath Reel, a composition of selected short videos on mathematics, and several other mathematical films were shown. Exhibitions on "Hands-on Mathematics" (addressing high-school students and teachers in particular), "Mathematical Stone Sculptures", "Mathematics and Ceramics", and works by high-school students on "Mathematics and the Art" complemented the Urania activities. An additional exhibition featuring paintings and sculptures related to mathematical objects (Innovation^3) was shown at the Ludwig-Erhard-Haus. More than 5,000 persons attended the Urania lectures and video performances, about 10,000 visited the exhibitions in the Urania.

The Committees of the Congress

Program Committee (appointed by the IMU)

Phillip Griffiths, *Chairman*	Institute for Advanced Study, Princeton, USA;
Luis Caffarelli	University of Texas, Austin, USA
Ingrid Daubechies	Princeton University, Princeton, USA
Gerd Faltings	Max-Planck-Institut, Bonn, Germany
Hans Föllmer	Humboldt-Universität, Berlin, Germany
Michio Jimbo	Kyoto Universtity, Kyoto, Japan
John Milnor	SUNY at Stony Brook, Stony Brook, USA
Sergei Novikow	Landau Institute, Moscow, Russia, and University of Maryland, USA
Jacques Tits	Collège de France, Paris, France

The German Mathematical Society together with representatives of the mathematical institutions of Berlin appointed the President, Honorary President, Vice President, Treasurer and Secretary (Board of Directors) of the Local Organizing Committee, who in turn appointed the members of all further committees.

Organizing Committee

Martin Grötschel	*President*	ZIB and TU Berlin
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Jutta Lohse	WIAS Berlin	Günter M. Ziegler	TU Berlin

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Gernot Stroth	Halle
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Registration of the participants

List of Donors

The Organizing Committee is greatly indebted to all those who have supported the congress either by monetary contributions or by donating goods and services. Without these generous donations it would have been impossible to launch ICM'98. We would like to thank the following sponsors cordially:

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Berlin-Brandenburgische Akademie der Wissenschaften

International Mathematical Union
Deutsche Mathematiker-Vereinigung
European Mathematical Society
Deutsche Gesellschaft für Versicherungsmathematik
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