

## MARTIN GRÖTSCHEL

detailed information at <http://www.zib.de/groetschel>

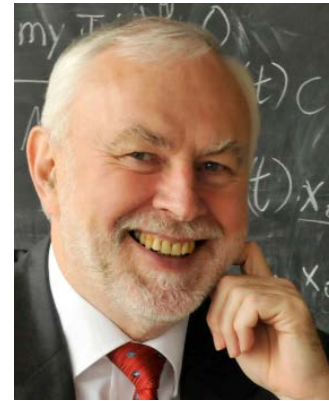
**Date / Place of birth:** Sept. 10, 1948, Schwelm, Germany

**Family:** Married since 1976, 3 daughters

### Affiliation:

Full Professor at  
Technische Universität Berlin (TU)  
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### Selected (major) functions in scientific organizations and in scientific service:

#### Current functions:

since 1999 Member of the Executive Committee of the IMU  
since 2001 Member of the Executive Board of the Berlin-Brandenburg Academy of Science  
since 2007 Secretary of the International Mathematical Union (IMU)  
since 2011 Chair of the Einstein Foundation, Berlin  
since 2012 Coordinator of the Forschungscampus Modal

#### Former functions:

1984 – 1986 Dean of the Faculty of Science, U Augsburg  
1985 – 1988 Member of the Executive Committee of the MPS  
1989 – 1996 Member of the Executive Committee of the DMV, President 1992-1993  
2002 – 2008 Chair of the DFG Research Center MATHEON "Mathematics for key technologies"

### Scientific vita:

1969 – 1973 Mathematics and economics studies (Diplom/master), U Bochum  
1977 PhD in economics, U Bonn  
1981 Habilitation in operations research, U Bonn  
1973 – 1982 Research Assistant, U Bonn  
1982 – 1991 Full Professor (C4), U Augsburg (Chair for Applied Mathematics)  
since 1991 Full Professor (C4), TU Berlin (Chair for Information Technology)  
1991 – 2012 Vice president of Zuse Institute Berlin (ZIB)  
since 2012 President of ZIB

### Selected awards:

1982 Fulkerson Prize of the American Math. Society and Math. Programming Soc. (MPS)  
1990 Karl Heinz Beckurts Prize (for technology transfer to industry)  
1991 George B. Dantzig Prize of MPS and SIAM  
1995 Leibniz Prize of the German Research Foundation (DFG)  
1998 Honorary Member of the German Mathematical Society (DMV)  
1999 Scientific Prize of the German Association of Operations Research (GOR)  
2004 EURO Gold Medal (EURO - The Ass. of European Operational Research Societies)  
2006 John von Neumann Theory Prize (INFORMS)  
2008 Scientific Award of the Governing Mayor of Berlin  
2009/10 SIAM Fellow, SIAM Prize for Distinguished Service to the Profession,  
2014 Life Time Award of Heureka Foundation for Environment & Mobility  
Four honorary PhD degrees, Distinguished Affiliated Professor (TU München)

### Membership in scientific academies:

1995 Member of the Berlin-Brandenburg Academy of Sciences and Humanities (BBAW)  
1999 Foreign Associate of the National Academy of Engineering, USA  
2003 Member of acatech – German Academy of Science and Engineering  
2005 Member of Leopoldina – German National Academy of Sciences

**Selected invited and plenary lectures:**

2000 17th International Symposium on Mathematical Programming, Atlanta, USA  
2000 20th Conference on the Foundations of Theoretical Computer Science, New Delhi, India  
2002 Mekler Lecture, Simon Fraser University, Burnaby, BC, Canada  
2002 Plenary Lecture, SIAM 50th Anniversary Meeting, Philadelphia, USA  
2002 Gödel Lecture, Austrian Academy of Sciences, Vienna, Austria  
2004 20th European Conference on Operational Research, Rhodes, Greece  
2005, 2009, 2013 Plenary Lectures at the Annual Meeting of the Chinese Mathematical Society  
2006 International Congress of Mathematicians 2006, Madrid, Spain  
2006 IFORS Distinguished Lecturer at XIII CLAIO, Montevideo, Uruguay  
2008 Annual acadtech meeting – German Academy of Science and Engineering, Berlin, Germany  
2009 4th International Conference on High Performance Scientific Computing, Hanoi, Vietnam  
2012 Pinhas Naor Lecture at the ORSIS 2012 meeting, Jerusalem, Israel  
2013 Distinguished Lecture, Beijing International School of Mathematics Research, Beijing, China  
2014 Deng Kang Distinguished Lecture, Beijing, China  
2014 RAMP Plenary Lecture, Tokyo, Japan

**Conference Organization:** Participating in the organization of two to three conferences or workshops every year, either as a member or chair of the organizing committee or as a member of the program committee. Major “job”: President of the organization committee of the International Congress of Mathematicians 1998 in Berlin

**Editorship:** Member of the editorial board of 16 scientific journals, currently active in 10 (e.g., Mathematical Programming Series A, Mathematical Methods of Operations Research, Networks, Journal of Mathematics in Industry)

**Fields of research:**

For detailed information see <http://www.zib.de/groetschel/research/projects.html>.

- Main research areas: optimization, discrete mathematics, and operations research
- Current special interest: design and implementation of practically efficient algorithms for the solution of hard real-world optimization problems
- More than thirty application projects with industry partners in areas such as gas pipeline optimization, infrastructure planning, telecommunication, manufacturing and production, logistics, public transportation, VLSI design, electronic information and communication
- Almost 50 PhD students and almost 200 diploma/master/bachelor students supervised

**Selected publications:**

For detailed information see <http://www.zib.de/groetschel/research/Musterbiblio.html>.

I have authored and edited 14 books and written more than 100 articles.

- Martin Grötschel, Klaus Lucas, Volker Mehrmann (eds.): *Production Factor Mathematics*, acadtech and Springer, 2010
- Martin Grötschel, Benjamin Hiller, Andreas Tuchscherer: *Structuring a Dynamic Environment: Combinatorial Online Optimization of Logistics Processes*, in: Klaus Lucas, Peter Roosen (eds.): *Emergence, Analysis and Evolution of Structures. Concepts and Strategies Across Disciplines*, Springer, 2009, 199-214
- Andreas Eisenblätter, Hans-Florian Geerdes, Martin Grötschel: *Planning UMTS Radio Networks*, OR/MS Today, 35:6 (2008) 40-46
- Hartwig Bosse, Martin Grötschel, Martin Henk: *Polynomial inequalities representing polyhedra*, Math. Programming, Series A, 103:1 (2005) 35-44
- Martin Grötschel, Olaf Holland: *Solution of large-scale symmetric travelling salesman problems*, Math. Programming, Series A, 51:2 (1991) 141-202
- Martin Grötschel, Klaus Truemper: *Decomposition and Optimization over Cycles in Binary Matroids*, Journal of Combinatorial Theory, Series B, 46:3 (1989) 306-337
- Martin Grötschel, László Lovász, Alexander Schrijver: *The ellipsoid method and its consequences in combinatorial optimization*, Combinatorica, 1:2 (1981) 169-197