

## CURRICULUM VITAE



*First Name, Name* Dominique de WERRA

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*Date of birth* November 26, 1942

*Origin* Sion and St-Maurice (Valais, Switzerland)

*Family status* widower, 3 children, 7 grandchildren

*Education* Eng. Diploma « Ecole Polytechnique Fédérale de Lausanne » (1965)  
(Eng. Physics)  
Ph.D. « Ecole Polytechnique Fédérale de Lausanne » (1969)  
(Operations Research)

*Present position* Honorary professor « Ecole Polytechnique Fédérale de Lausanne »  
EPFL (2008 - )

*Previous positions* Professor FSB - Institute of Mathematics EPFL, Lausanne (1979 - 2008)  
Dean of international relations (2000 - 2004)  
Vice-president EPFL (1991 - 2000),  
Director of education (1993 - 2000)  
Provost (President of the Conference of Department Chairmen) March-  
December (1990)  
Director of Mathematics Department, EPFL (1980-1981)  
Associate professor, Mathematics Department, EPFL (1971-1979)  
Assistant professor, Dept. of Management Sciences, Univ. of Waterloo  
(Ontario, Canada) (1969-1971)

*Visiting positions* Bundeswehr Universität, Munich, June 2007  
CNAM, Paris, February 2007  
CNAM, Paris, March and December 2006  
CNAM, Paris, October 2005  
CNAM, Paris, Mai 2004  
CNAM, Paris, January-February and Mai-June 2003  
CNAM (Conservatoire national des arts et métiers), Paris, February and July  
2002  
Université OF Paris-Dauphine, european chair, May 2002  
University of Montreal, May 2001  
University of Paris, Panthéon-Sorbonne, Jan.- Febr. 2001

University of Montreal, October 2000

University of Bologna, Italy, April 1997

University of Pisa, Italy, January 1994 and April 1997

University of Bologna, Italy, May 1993

Rutgers University, New Brunswick, N.J., U.S.A., May 1988

Dept. of Combinatorics & Optimization, University of Waterloo, Canada,  
April - July 1983

Institute of Datalogic, Univ. of Copenhagen, Denmark, March 1980

Dept. of Management Sciences University of Waterloo, Ontario, Canada,  
Summer 1974 and Summer 1977

### ***Areas of interest***

- Operations Research
- Combinatorics (Graph theory)
- Scheduling and Timetabling
- Mathematical Programming
- Production
- Flexible Manufacturing Systems
- Computer Integrated Manufacturing
- Artificial Intelligence Techniques

### ***Teaching (courses taught)***

- Introductory Operations Research
- Introductory Probability Theory
- Numerical Analysis
- Analysis for Engineers
- Graphs and Networks
- Combinatorics
- Optimization (Mathematical Programming)
- Linear Programming
- Heuristics
- Production and Scheduling
- Discrete Mathematics for computer science

### ***Membership of professional Societies***

- Association Suisse de Recherche Opérationnelle (ASRO, Switzerland)
- Canadian O.R. Society
- Association Française de Cybernétique Economique et Technique (AFCET, France)
- Société Mathématique de France (SMF)
- Mathematical Programming Society
- Société Mathématique Suisse
- Association Suisse pour l'Automatique
- Member of editorial board of the new journal Discrete Optimisation (Elsevier Foundation, 2003)
- Individual Member of the Académie Suisse des Sciences Techniques (SATW) (1995-)

### ***Presidency***

- President of CLUSTER (European Consortium Linking Universities of Science and Technology for Education and Research), 2000-2003
- Vice-president of IFORS (International Federation of Operations Research Societies), 1998-2000
- President of EURECOM, Sophia-Antipolis, 1991-1996
- President of G.I.E. Eurécom (joint programme EPFL and Ecole Nationale Supérieure des Télécommunications (Paris) 1991-1996
- President of Conference of Dept Heads (Provost) 1988-1990
- President of EURO (the association of national Operations Research Societies of Europe within the International Federation of Operations Research Societies; 10'000 members), 1987-1988
- President of the Swiss Operations Research Society, 1985-1986

### ***Honours***

- IFORS Distinguished Lecturer 2006 (APORS (Asia Pacific Operations Research Society) conference Manila, Philippines)
- "Piccone Lecture 2004-2005" (invited lecture at the Istituto per le Applicazioni del Calcolo, Consiglio Nazionale delle Ricerche (Roma, January 2005)
- EURO Gold Medal (EURO XIV, Jerusalem, July 1995)
- Doctorate honoris causa (Paris-Dauphine University, 1992)
- Doctorate honoris causa (Technical University, Poznan, 1992)

### ***Books & books edited***

- "Stability in Graphs and Related Topics" (with V. Lozin) special issue dedicated to C. Ebenegger Discrete Applied Mathematics, vol. 132 (2003)
- "Recherche opérationnelle pour ingénieurs" (with T. Liebling & J.F. Hêche) Presses Polytechniques Universitaires Romandes, Tomes I & II, 2003
- "Lectures on Mathematical Programming" (with Th. Liebling) North Holland (1997)
- "Viewpoints on Optimization" (with A. Hertz, B. Jaumard, M. Labbé) Special Issue of Discrete Applied Mathematics, vol. 49, Nos 1-3 (1994)
- "Tabu Search" (with F. Glover, M. Laguna, E. Taillard) Annals of Operations Research 41 (1993)
- "Timetabling and Chromatic Scheduling " (with A. Hertz) Special issue of Discrete Applied Mathematics, vol. 35, No 3, 1992
- "Pseudo-Boolean Optimization and Related Topics" (with P. Hansen) Special issue of Discrete Applied Mathematics, vol. 29, No 2-3, 1990
- "Graph Coloring and Variations" (with A. Hertz) Annals of Discrete Mathematics, (North-Holland, Amsterdam, 1989)
- "Programmation linéaire: applications aux problèmes de graphes " Presses Polytechniques Romandes, 1989
- "Regards sur la théorie des graphes" (with P. Hansen) Proceedings of the Cerisy Colloquium on Graph Theory, June 1980, (Presses Polytechniques Romandes, 1981)

### *Lectures notes*

- Bases de l'algorithmique, 1990
- Mathématiques de l'aide à la décision, Janvier 1986
- Programmation linéaire II, Octobre 1985
- Programmation linéaire I, Octobre 1984
- Applications des méthodes de la R.O. à certains problèmes des ingénieurs, 1977
- Programmation non linéaire, Avril 1977
- Eléments de programmation linéaire, Octobre 1976
- Graphes et réseaux, 1ère, 2ème et 3ème parties, Mars 1974 et Avril 1976

### *Editorial boards*

- European Journal of O.R. (EJOR)
- Discrete Applied Mathematics (USA)
- Annals of Operations Research (USA)
- Asia-Pacific Journal of Operational Research
- Discrete Optimization
- 4OR
- Ricerca Operativa
- Foundations of Computing & Decision Sciences (PL) (since Jan. 91)
- Yugoslav Journal of Operations Research (YU) (since 1991)
- International Transactions in Operational Research (IFORS) (since 1994)
- Mathematics of Industrial Systems (USA) since 1994)
- Society for Industrial and Applied Mathematics (SIAM) (since 1997)
- Journal of Scheduling (since 1998)
- Math Reviews

### *Other scientific activities*

- Creation (with C. Roucairol (F) and A. Rinnooy Kan (NL) of ECCO (Euro Working Group on Combinatorial Optimization) in 1988
- Founding member of AISTS (Académie Internationale des Sciences et Techniques du Sport) with University of Lausanne, International Olympic Committee

### *Scientific Commissions*

- Symposium LAGOS '07, Puerto Varas (Chili 2007)
- Multidisciplinary international conference MISTA, (Paris 2007)
- European congress EURO XXII, (Prague 2007)
- Congress ECCO XX (European Chapter on Combinatorial Optimization), Limassol (Cyprus 2007)
- Annuel congress FRANCORO-ROADEF (Association française de Recherche Opérationnelle et d'Aide à la Décision), Grenoble (France 2007)
- International scientific committee of the 7<sup>e</sup> ROADEF congress, Lille (France), 2006
- Scientific committee of the Organe d'Accréditation et d'Assurance Qualité (OAQ) (Switzerland), 2001-

- Committee of scientific evaluation of the Ecole des Mines (France), 2001-
- Committee of strategic orientation of the Ecole des Mines (France), 2001-
- Scientific Committee CNRS (Paris), « évaluation du Laboratoire d'Analyse et Modélisation de Systèmes pour l'Aide à la Décision » (LAMSADE), Paris-Dauphine, 1998-2000
- Presidency of the scientific committee CNRS (Paris), laboratory estimation. Université de Paris 6 (Jussieu) 1998
- Scientific committee Laboratoire Leibniz, I.N.P.G. (Grenoble), 1995-1998
- International Advisory Board of the Institute for Computer Science Research, Bar-Ilan University, (Israel), 1995 –
- Research committee of the Ecole des Mines, Paris (France), 1994
- Scientific council of the Ecole des Mines, Nantes, 1993-
- Scientific committee CNRS (Paris), 1993
- Scientific committee N.S.E.R.C. (Natural Sciences and Engineering Research Council of Canada)
- Scientific committee NSERC (Natural Sciences and Engineering Research Council of Canada)
- Foundation council of the « Fonds National de la Recherche Scientifique » (Switzerland)

### ***Meetings organized***

- Organization of a session of EURO 2010 congress (Lisbon, July 2010)
- Organization of a session of EURO 2009 congress (Bonn, July 2009)
- Organization of a session of EURO 2007 congress (Prag, July 2007)
- Organization of the GO V congress (with professor M. Widmer and B. Ries) (Leysin, August 2006)
- Organization of a session of EURO 2006 congress (Reykjavik, July 2006)
- Organization (with prof. T. Liebling) of the Latis Symposium on Discrete Mathematics (EPFL, 2001)
- Organization (with Th. Liebling) of the 16th International Symposium on Mathematical Programming (August 1997, Lausanne, Switzerland)
- Organization (with C. Ebenegger) of a colloquium "Viewpoints on Optimization" (September 1990, Grimentz, Switzerland)
- Organization (with P. Hansen and C. Ebenegger) of a meeting "Pseudo-Boolean Optimization and Related Areas" (September 1987, Chexbres, Switzerland)
- Organization (with A. Strohmeier) of the International Conference EURO V/TIMS XXV (July 1982, EPFL, Lausanne)
- Organization (with P. Hansen) of the Seminar "Regards sur la théorie des graphes", (June 1980, Cerisy-la-Salle, Normandy)

### ***Ph.D. Theses supervised***

- B. Leroy-Beaulieu, « Some coloring and walking problems in graphs », EPFL May 2008
- B. Ries, « Variations of coloring problems related to scheduling and discrete tomography », EPFL, October 2007
- T. Ekim-Asici, « Generalized vertex coloring problems using split graphs », EPFL, August 2006
- I. Blöchliger, « Suboptimal colorings and solutions of large chromatic scheduling problems », EPFL, September 2005
- D. Schindl, « Some combinatorial optimization problems in graphs with applications in telecommunications and tomography », EPFL, September 2004

- A. Rogger, "Heuristiken für kombinatorische Optimierung und semantische Bildinhaltserkennung mit Techniken der künstlichen Intelligenz", EPFL, January 1995
- E. Amaldi, "From Finding Maximum Feasible Subsystems of Linear Systems to Feedforward Neural Network Design", EPFL, October 1994
- N. Dubois, "Méthodes d'optimisation combinatoire pour des problèmes de graphes", EPFL, December 1994
- F. Semet, "Elaboration de tournées de véhicules sous contraintes d'accessibilité", EPFL, 1993
- E. Mayoraz, "Feedforward Boolean Neural Networks with Discrete Weights: Computational Power and Training", EPFL, 1993
- E. Taillard, "Recherches itératives dirigées parallèles", EPFL, 1993
- P. Solot, "Nouvelles approches mathématiques des problèmes de conception et de pilotage des ateliers flexibles", EPFL, 1991  
*Prix Robert Faure de l'Association Française de Cybernétique Economique et Technique (AFCET), 1993, Prix SUR (Société Université de Recherche), Berne, 1993*
- M. Cochand, "Sur quelques problèmes combinatoires relatifs à l'ordonnancement", UNIL, 1990
- M. Widmer, "Modèles mathématiques pour une gestion efficace des ateliers flexibles", EPFL, 1990. (Livre publié ultérieurement par les Presses Polytechniques Universitaires Romandes)
- A. Hertz, "La coloration des sommets d'un graphe et son application à la confection d'horaires", EPFL, 1989, Prix de l'Association Suisse de R.O., 1990
- C. Pasche, "Optimisation dans les réseaux et problèmes d'énergie", EPFL, 1987
- J. Bovet, "Elaboration de systèmes informatisés pour l'organisation de tournées de distribution", EPFL, 1984
- J.-P. Leyvraz, "Le problème de la répartition proportionnelle", EPFL, 1977

« co-rapporteur » in many thesis committees in America and Europe