FOURTEENTH CONFERENCE ON THE MATHEMATICS OF OPERATIONS RESEARCH

CONFERENCE CENTER 'DE BRON'
DALFSEN, THE NETHERLANDS

JANUARY 15-17, 1990

Organized by the
Centre for Mathematics and Computer Science,
Amsterdam, The Netherlands

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Fifteenth Conference on the Mathematics of Operations Research

January 15-17, 1990, Dalfsen, The Netherlands

AIM AND SCOPE

The aim of the conference is to promote the research activities and the cooperation between researchers in the mathematics of operations research.

The main theme of the conference will be interior point methods. There will be a minicourse on this subject, which will be given by K. Ballintyn (KSLA Amsterdam, C. Roos (TU Delft) and A. Schrijver (CWI Amsterdam). Four specialists from abroad will also tie in with this subject. From them, K.M. Anstreicher (USA) and C.C. Gonzaga (Brasil) will present overviews of interior point methods, M.J. Todd (USA) will speak about a variant of Karmarkar's algorithm and J.Ph. Vial (Switzerland) will show an application.

Furthermore, three non-Dutch specialists have been invited to give two lectures on recent developments in their field of interest. They have been asked to present a tutorial survey of their area in the first talk and discuss their own recent work in the second lecture. Ph. Flajolet (Paris) will discuss stochastic analysis of algorithms, D. Towsley (Amherst) will speak about queueing networks and W.J. Cook (Morristown) will give lectures about combinatorial optimization subjects.

The program should give ample opportunity for informal discussions. The conference center is located in the scenic surroundings of Dalfsen, located in the northeastern part of the Netherlands.

ORGANIZATION

The conference is organized by the Centre for Mathematics and Computer Science in Amsterdam under the auspices of the Dutch Research Community in the Mathematics of Operations Research and System Theory, with financial support by the Dutch Mathematical Society and the Dutch Society of Operations Research.

PROGRAM

Invited speakers

K.M. Anstreicher (Yale School of Organization and Management, New Haven, USA):

1. Interior algorithms for linear programming since 1984

W.J. Cook (Bellcore, Morristown, USA):

1. Polyhedral methods in combinatorial optimization
2. Lower bound techniques for the travelling saleman problem

Ph. Flajolet (INRIA, Paris, France):

1. Recent trends in the average-case analysis of data structures (1)
2. Recent trends in the average-case analysis of data structures (2)

C.C. Gonzaga (COPPE-Federal University of Rio de Janeiro, Rio de Janeiro, Brasil):

1. An overview of $O(\sqrt{n}\,L)$-iteration algorithms for linear programming

M.J. Todd (Cornell University, Ithaca, USA):

1. A Dantzig-Wolfe-like variant of Karmarkar's interior-point linear programming algorithm

D. Towsley (Amherst, USA):

1. An introduction to optimization and control of queueing networks
2. Scheduling policies for real-time and parallel processing systems

J-Ph. Vial (University of Geneva, Geneva, Switzerland):

1. Central planners should use central prices

Minicourse: Interior point methods
The field of linear programming, considered to be all but dead as a research topic, has been revived by the work of Karmarkar. In 1984, he claimed that his socalled Projective Method could solve large scale linear programming methods considerably faster than the classical Simplex Method. His work has given rise to a renewed research effort in linear programming, resulting in a new approach of lp-problems, viz. by interior point methods. The minicourse is intended to provide the theoretical background of interior point methods and to give an insight into the numerical aspects.

A. Schrijver (CWI, Amsterdam):
The algorithm of N. Karmarkar for linear programming

C. Roos (Delft University of Technology, Delft):
Polynomial-time algorithms for linear programming based on the use of the logarithmic barrier penalty function

C. Ballintyn (KSLA, Amsterdam):
Implementation aspects and performance results of the dual affine algorithm

PRELIMINARY TIME SCHEDULE

Monday January 15, 1990

11.30	Opening
11.40	Minicourse (1): Schrijver
12.30	*Lunch break*
15.00	Towsley (1)
15.50	*Tea break*
16.20	Flajolet (1)
17.10	Anstreicher (1)
18.30	*Dinner*

Tuesday January 16, 1990

9.00	Minicourse (2): Roos
9.50	*Coffee break*
10.20	Cook (1)
11.10	Minicourse (3): Ballintyn
12.30	*Lunch break*
15.00	Flajolet (2)
15.50	*Tea break*
16.20	Towsley (2)
17.10	Gonzaga (1)
18.30	*Dinner*

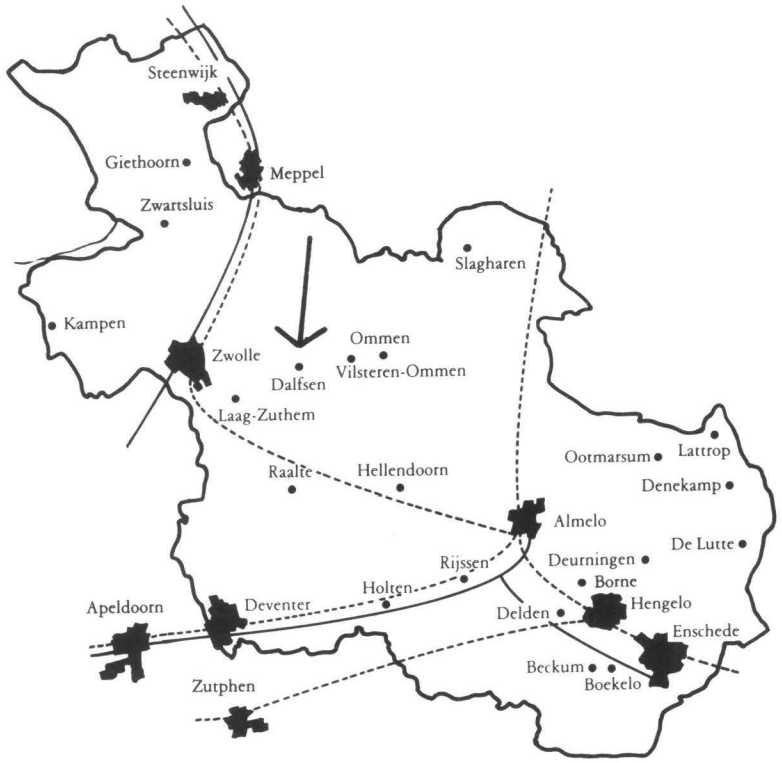
Wednesday January 17, 1990

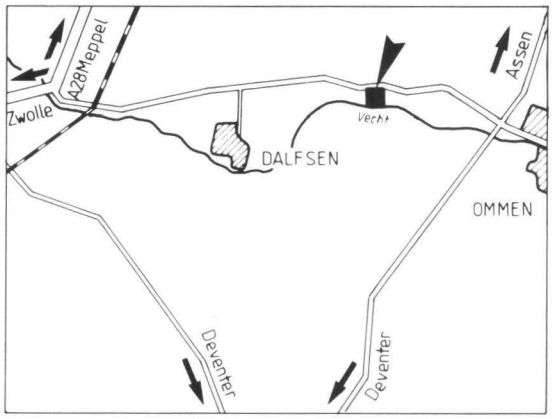
9.00	Todd (1)
9.50	*Coffee break*
10.20	Cook (2)
11.10	Vial (1)
12.00	Closing
12.30	*Lunch break*

LOCATION

Conference Center 'De Bron', Oude Oever 10, Dalfsen, The Netherlands. Telephone + 31-5297-1600. Dalfsen can be reached by train from Zwolle and from railway station Dalfsen. The Conference Center has its own Shuttle-service from NS-station Dalfsen.

By car, one should take on the A28 (Zwolle-Meppel) exit Ommen/Hardenberg; after passing past Dalfsen, the entrance of the Conference Center is at km 12.5 on the N34.





The location of 'De Bron'

REGISTRATION

The registration fee is Dfl. 315.00 for a single room with private shower and toilet and Dfl. 275.00 for a single room without private shower and toilet. The price includes board and lodging from Monday January 15 before lunch until Wednesday January 17 after lunch.
Partial arrangements are possible but not encouraged. If a partial arrangement is desired please contact mrs. Bijleveld, see the address below.
One can register until January 5, 1990 by means of the application form.

INFORMATION

For further information contact:

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The Netherlands

APPLICATION FORM

I will attend the *Fifteenth Conference of the Mathematics of Operations Research,* to be held in 'De Bron', Dalfsen, The Netherlands, January 15-17, 1990.

☐ I prefer to have a room with private shower and toilet (Dfl. 315)

☐ I prefer to have a room without private shower and toilet (Dfl. 275)

Name : _____

Affiliation : _____

Department : _____

Address : _____

Postal code : _____

City : _____

Telephone : _____

Date : _____

Signature : _____

Don't send any money; we will invoice you after receiving your application.

The completed form should be sent, *before January 5, 1990* to:

Mrs. G. Bijleveld
Centre for Mathematics and Computer Science
P.O. Box 4079
1009 AB Amsterdam
The Netherlands