33rd CONFERENCE ON THE
MATHEMATICS OF OPERATIONS RESEARCH

and

SEMINAR ON "OPERATIONS RESARCH AND ENERGY"

Conference Center 'The Werelt', Lunteren, The Netherlands
January, 15 – 17, 2008

AIM and SCOPE

The aim of the conference is to promote research activities and cooperation between senior and junior researchers in the mathematics of Operations Research in the Netherlands. The program offers high quality research and applications and should appeal to both academic researchers and people from profit and non-profit organizations.

On the last day a seminar is jointly organized by the LNMB (Landelijk Netwerk Mathematische Besliskunde) and NGB (Nederlands Genootschap Besliskunde) on the subject "Operations Research and Energy".

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

During the first two days, there are five prominent invited speakers from abroad who will present two lectures in their field of research:

-Friedrich Eisenbrand (University of Paderborn, Germany):
   http://www2.math.uni-paderborn.de/ags/eisenbrand/people/friedrich-eisenbrand.html

-   David Gamarnik (MIT, Cambridge, USA): http://www.mit.edu/~gamarnik/home.html
-   Anupam Gupta (Carnegie Mellon University, Pittsburgh, USA): http://www.cs.cmu.edu/~anupamg/
-   Jong-Shi Pang (Rensselaer Polytechnic Institute, Troy, New York, USA): http://www.rpi.edu/~pangj/
-   Balaji Prabhabar (Stanford University, USA): http://www.stanford.edu/~balaji/

The seminar on "Operations Research and Energy" is held on Thursday.

On Tuesday and Wednesday there are also some 30-minutes presentations by Ph.D. students.

Biographies of the five invited speakers and a registration form can be found in this announcement.

For more information: www.lnmb.nl/conferences/lunteren2008

Program Tuesday January 15

10.15	Registration
10.55 – 11.00	Opening
11.00 – 11.45	Friedrich Eisenbrand: *Parameterized integer programming, part I*
12.00 – 12.45	Balaji Prabhakar: *Randomized Network Algorithms: An Overview and Recent Results*
12.45	Lunch
14.00 – 15.30	PhD presentations (parallel)
16.00 – 16.45	David Gamarnik: *Decidability issues in the theory of queueing networks*.
17.00 – 17.45	Anupam Gupta: *Stochastic Combinatorial Optimization I: Two Stage Optimization with Recourse*
18.30	Dinner
20.30	Meeting for the members of the LNMB

Program Wednesday January 16

09.00 – 09.45	Jong-Shi Pang: *The Variational/Complementarity Approach to Nash Equilibria, part I.*
10.00 – 10.45	Balaji Prabhakar: *Turbo-Counting: A New Architecture for Network Traffic Measurement*
11.15 – 12.00	Friedrich Eisenbrand: *Parameterized integer programming, part II*
12.15 – 13.00	Anupam Gupta: *Stochastic Combinatorial Optimization II: Extensions and Online Problems*
13.00	Lunch
14.30 – 15.30	PhD presentations (parallel)
16.00 – 16.45	Jong-Shi Pang: *The Variational/Complementarity Approach to Nash Equilibria, part II.*
17.00 – 17.45	David Gamarnik: *Large scale queueing systems in the Quality/Efficiency driven regime and applications.*
18.30	Dinner
20.30	Meeting PhD students LNMB

Program Thursday January 17: Seminar Operations Research and Energy

09.30 – 10.00 Registration and Coffee
10.00 – 10.10 Welcome and introduction by the chairman Ton Hoff
10.10 – 10.50 Casper Middelkamp: *Optimisation of a Dutch power plant portfolio (Nuon)*
11.00 – 11.40 Sonja Bouwman: *A survey of OR models and techniques for electrical grid companies*
11.50 – 12.30 Janneke Meesters: *Cost effective Product Replenishment in the Oil & Gas Industry*
12.30 – 14.00 Lunch
14.00 – 14.40 Wil Kling*: Long-term and short-term decision making on the structure of the Dutch electricity network (Tennet)*
14.50 – 15.30 Han La Poutré: *Market-mechanisms for decentralized control and allocation of energy*.
15.40 – 16.20 Thijs van den Berg. *Wind Energy: Valuation and Risk Management*.
16.30 – 17.10 Cyriel de Jong: Gas Storage *Valuation and Optimization*
17.10 – 18.00 Drinks

PhD PRESENTATIONS AND LNMB DIPLOMAS

The PhD students of the LNMB are strongly recommended to present a paper at this conference. In order to receive the LNMB diploma, a PhD student must have given such presentation at least once. For each presentation 30 minutes are available in one of the parallel sessions. For each contributed paper a senior member of the LNMB will be available to act as discussant.

The deadline for the application of a PhD presentation is **December 7**. To apply, send the following information to kallenberg@math.leidenuniv.nl: your name and the name of your supervisor, the title and an abstract of about half a page. When you give a PhD presentation, you also have to fill in the application form.

During the conference the LNMB diplomas will be presented to the PhD students who have fulfilled the requirements for this diploma (750 credit points or 25 EC and a PhD presentation). If you believe to have fulfilled these requireents, please send **before December 14**, an e-mail to lnmb@math.leidenuniv.nl with the following information:
-your family name and full first name(s);
-date of birth (dd/mm/yy);
-place of birth (city, country);
-certificated courses with credit points;
-Lunteren conferences you have attended (you receive 30 credit point for each conference).

LOCATION

Conference Center 'De Werelt', Westhofflaan 2, Lunteren, The Netherlands, phone 0318 - 484641.
For more information, e.g. 'how to reach' see: www.congrescentrum.com

ORGANIZATION AND INFORMATION

The conference is organized by the LNMB (Landelijk Netwerk Mathematische Besliskunde), the seminar jointly with the NGB (Nederlands Genootschap Besliskunde).

For more information contact the director of the LNMB, Lodewijk Kallenberg (kallenberg@math.leidenuniv.nl; phone 071 - 5277130) or look at the site www.lnmb.nl/conferences/lunteren2008.

REGISTRATION

One can register by sending in the registration form and transferring the fee. Participants can register for the entire meeting as well as for partial arrangements. It is possible, against reduced rates, to share a room; in that case a roommate should be indicated on the registration form. PhD students of the LNMB who attend the entire meeting including the seminar are entitled to a reduction of € 50 of the fee in addition to the financial support of 50% of their traveling expenses.

The various fees and bank account can be found on the enclosed registration form. Please send this form as soon as possible, but **ultimately December 14**, to the secretary of the LNMB, mrs. J. Aanhaanen – van Duijn, Mathematical Institute, Leiden University, P.O. Box 9512, 2300 RA Leiden, The Netherlands.

SPEAKERS ON JANUARY 15 AND 16

Friedrich Eisenbrand (University of Paderborn, Germany)
Friedrich Eisenbrand received the Dr.-Ing. degree from the Saarland University in 2000, while being a researcher at the Max Planck Institute for Computer Science in Saarbrücken. He then worked as a postdoctoral researcher at the Istituto di Analisi dei Sistemi ed Informatica "Antonio Ruberti" in Rome and at the Technical University in Berlin and returned in 2002 to the Max Planck Institute for Computer Science as the head of the independent research group for Discrete Optimization. In 2005 he became associate professor for theoretical computer science in Dortmund and since 2006 he is full professor of Mathematics at the University of Paderborn Germany. Friedrich Eisenbrand received the Otto-Hahn medal of the Max Planck society in 2001 and the Maier-Leibnitz award of the German research foundation in 2004.

David Gamarnik (Massachusetts Institute of Technology, Cambridge, USA)
David Gamarnik is an associate professor of operations research in the Sloan School of Management of Massachusetts Institute of Technology. He received B.A. in mathematics from New York University in 1993 and Ph.D. in Operations Research from MIT in 1998. Since then he worked as a research staff member at the Department of Mathematical Sciences, IBM Research, before joining Operations Research Group in the Sloan School of Management in 2005. His research interests include applied probability and stochastic processes with application to queueing theory, theory of random combinatorial structures and algorithms, combinatorial optimization and statistical learning theory.
He is a recipient of Erlang Prize from INFORMS Applied Probability Society in 2004 and currently serves as a council member of Applied Probability Society of INFORMS. He as an associate editor of Annals of Applied Probability and Operations Research journals.

Anupam Gupta (Carnegie Mellon University, Pittsburgh, USA):
Anupam Gupta received the B.Tech degree in Computer Science from Indian Institute of Technology, Kanpur in 1996, and the PhD degree in Computer Science from the University of California, Berkeley, in 2000. He was a postdoc at Cornell University, Lucent Bell Labs, Murray Hill, and subsequently joined Carnegie Mellon University in 2003, where he is currently an Assistant Professor in the Computer Science Department. His research interests are in the area of theoretical Computer Science, primarily in developing approximation algorithms for NP-hard optimization problems, and understanding the algorithmic properties of metric spaces. He is the recepient of an Alfred P. Sloan Research Fellowship, and the NSF Career award.

Jong-Shi Pang (Rensselaer Polytechnic Institute, Troy, New York, USA)
Jong-Shi Pang obtained his Ph.D. degree in Operations Research from Stanford University in 1976. He is presently the Caterpillar Professor and Head of the Department of Industrial and Enterprise Systems Engineering at the University of Illinois at Urbana-Champaign. Prior to this position, he held the Margaret A. Darrin Distinguished Professor in Applied Mathematics at Rensselaer Polytechnic Institute and taught at the Johns Hopkins University, the University of Texas at Dallas, and Carnegie-Mellon University.
Professor Pang was a winner of the 2003 George B. Dantzig Prize awarded jointly by the Mathematical Programming Society and the Society for Industrial and Applied Mathematics for his work on finite-dimensional variational inequalities, and a co-winner of the 1994 Frederick W. Lanchester Prize awarded by the Institute for Operations Research and Management Science. Two of his publications have received best paper awards. He is an ISI Highly Cited Researcher in the Mathematics Category between 1980 - 1999; he has published 3 widely cited monographs and more than 100 scholarly journals in top peer reviewed journals.

Balaji Prabhabar (Stanford University, USA)
Balaji Prabhakar is an Associate Professor of Electrical Engineering and Computer Science at Stanford University. Balaji is interested in network algorithms, in scaleable methods for network performance monitoring and simulation, in wireless (imaging) sensor networks, stochastic network theory and information theory. He has designed algorithms for switching, routing, bandwidth partitioning, load balancing, and web caching.
Balaji has been a Terman Fellow at Stanford University and a Fellow of the Alfred P. Sloan Foundation. He has received the CAREER award from the National Science Foundation, the Erlang Prize from the INFORMS Applied Probability Society, and the Rollo Davidson Prize awarded to young scientists for their contributions to probability and its applications.

SPEAKERS ON JANUARY 17

Thijs van den Berg (Sitmo)

Thijs van den Berg is the founder of Sitmo financial engineering a software and consultancy firms that designs and implement mathematical models for financial institutes and industries throughout Europe. The modeling activities focus on financial aspects of projects and contracts; these include valuation, optimization, risk management, hedging and structuring.

Before Sitmo, Thijs has been a derivative trader (market maker) at the EOE/AEX, a derivatives risk management sotware engineer, and head of applied research and technology / modeling of a large energy company.

Sonja Bouwman (KEMA, Arnhem)

Sonja Bouwman received the M.Sc. degree in applied mathematics in 1999 from the University of Twente, Enschede, The Netherlands. After her studies she worked for B-SIM in Enschede (a company who makes logistic simulations) and she did an extra practical training period in financial mathematics at INA, in Rome, Italy. She is currently working as a consultant at KEMA. KEMA is an international company that is closely involved in the way power is supplied the future of and how energy is used around the world. Its clients are major utilities, heavy industries and regulators and governments, as well as electrical and electronic manufacturing companies. At KEMA Sonja Bouwman is involved in projects in the field of: forecasting, statistics, data analysis, (replacement and maintenance) optimization, operations research and decision-making theory.

Cyriel de Jong (Maycroft Consulting, Erasmus University Rotterdam)

Dr Cyriel de Jong is partner at Maycroft Consulting and affiliated to Erasmus University Rotterdam. He studied econometrics and completed a Ph.D. thesis on financial derivatives. Since 2002 he has worked on a great number of projects related to energy derivative valuation, risk management, and investment analysis (primarily involving real options). He is particularly active in the application of energy simulation methodologies to value energy assets, contracts and tradable products.

Wil Kling (Tennet)

Prof. W. L. Kling received his M.Sc. degree in electrical engineering from the Technical University of Eindhoven, The Netherlands, in 1978. Since 1993, he is a part-time Professor at the Electric Power Systems Laboratory, Delft University of Technology, Delft, The Netherlands and since 2000, also at the Eindhoven University of Technology.

Furthermore he is with TenneT, the Dutch Transmission System Operator, in the Asset Management Department responsible for network strategy. His experience is in the area of planning and operation of power systems. Prof. Kling is involved in scientific organizations such as Cigré and IEEE. He is the Dutch Representative in the Cigré Study Committee C6 Dispersed Generation and Distribution Systems and the Eurelectric/UCTE WG SYSTINT.

Han La Poutré (CWI, Eindhoven University of Technology)

Han La Poutré is research group leader at CWI, for the research group "Computational Intelligence and Multi-agent Games (SEN4)". He is also full professor at Eindhoven University of Technology. His research group has been rated excellent both in 1999 and 2005, in the six-yearly evaluations of the CWI by NWO. Han La Poutré is member of several editorial boards (ACM Transactions on Internet Technology, Computational Management Science, Netnomics) and chair of the IEEE Computational Finance and Economics Technical Committee.

His research group has research lines for both fundamental and applied research, in multi-agent games (including auctions, negotiations, and market simulations), computational intelligence, and multi-agent systems.

The design of market mechanisms en simulations, as well as corresponding software agents belong to the core research areas of his group. The application of the research activities into real-world problems is an important activity of the group, in cooperation with industry and government.

Janneke Meesters (ORTEC Consultants, Gouda))

Janneke Meesters studied Econometrics and Operations Research at the University of Maastricht. She works as Senior Consultant for ORTEC. She is project manager of many projects in the Oil&Gas industry (with large customers, such as BP and SHV Gas), where optimisation of logistics processes are her main task.

Casper Middelkamp (Nuon)

Casper Middelkamp studied Applied Mathematics at the University of Twente from 1999 to 2005. From early 2006 on he has worked at Nuon as a Risk Analyst. Long-term dispatch of power plants is his main task, but he has also been involved in other energy market related quantitative subjects.

REGISTRATION FORM "LUNTEREN 2008"

Family name : …………………………………………………………………….……

First Name : …………………… Male / Female

Affilation : …………………………………………………………………….……

Address   : ……………………………………………………………………….

Postal Code : …………………… City: …………………………………………

Telephone : …………………….. E-mail address: ……………………………..

Date   : ……………………. Signature: …………………………………

Full Ph.D. Arrangement (tag your choices)   **Fee**

☐   I am LNMB PhD student and **attend the entire meeting** including the seminar on
        Thursday (Price includes registration fee, lodging in double room, meals and € 50,-
        reduction paid by the LNMB) ; Price: € 280,00   € …………

☐   I would like a single room (€ 50,- extra charge) ; Price: € 335,-   € …………

Standard reservation (tag your choices; calculate your fee)   **Fee**

☐   I will attend the conference on Tuesday (incl. coffee, tea and lunch); Price: € 37,50   € …………

☐   I will attend the conference on Wednesday (incl. coffee, tea and lunch); Price: € 37,50   € …………

☐   I will attend the seminar on Thursday (incl. coffee, tea, lunch and drinks); Price: € 50,00   € …………

☐   I will attend dinner on Tuesday; Price: € 32,50   € …………

☐   I will attend dinner on Wednesday; Price: € 32,50   € …………

☐   I wish to reserve a single room for Tuesday night (incl. breakfast); Price € 75   € …………

☐   I wish to reserve a single room for Wednesday night (incl. breakfast); Price € 75   € …………

☐   I wish to reserve a double room for Tuesday night (p.p. incl. breakfast); Price € 50   € …………

☐   I wish to reserve a double room for Wednesday night (p.p. incl. breakfast); Price € 50   €. …………

In case you share a room: Room mate: ………………………………………………………………….

■   Registration fee   €   **40**___

TOTAL FEE (please, fill in your total fee)   **€ …..………..**

We don't send invoices or confirmations. In case you wish to check your registration look at the LNMB website
www.lnmb.nl/conferences/lunteren2008/participants.html ; when you wish to receive a receipt for the fee,
send an e-mail to lnmb@math.leidenuniv.nl.
Transfer your fee ultimately December 14 to bank account 40.53.43.663 of Twente University with the note
"**fee LNMB/Lunteren 2008** for ………… (fill in the name(s))".
Please, return this form **ultimately December 14**, to:
Prof.dr. L.C.M. Kallenberg, Mathematical Institute, Leiden University, PO Box 9512, 2300 RA Leiden.

REGISTRATION FORM

I hereby register for the LNBM/NGB seminar "**Operations Research and Energy**", which will be held in Conference Center "De Werelt", Lunteren, January 17, 2008.

Family name: …………………………………………………………………………

First name: …………………………………………………………………………

Title: ………………………………… **Male / Female**

Company/Institute: …………………………………………………………….

Address: …………………………………………………………………………

Postal Code: ……………………. **City:** …………………………………….

Telephone number: ……………….. **E-mail:** …………………………………

Date: …………………………. **Signature:** …………………………….…….

Below, please tick the appropriate box:

I am:

LNMB/NGB member (Registration fee € 75): ☐

Other (Registration fee € 125): ☐

FEE PAYMENT INSTRUCTIONS WILL BE SENT TO YOU AFTER REGISTRATION

Send the registration form before January 7, 2008 by regular mail or e-mail or by fax to

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