



Comité National de Mathématique CNM

С М

Nationaal Comite voor Wiskunde

BMS-NCM NEWS: the Newsletter of the Belgian Mathematical Society and the National Committee for Mathematics

Campus Plaine c.p. 218/01, Bld du Triomphe, B-1050 Brussels, Belgium

Website http://bms.ulb.ac.be Newsletter F.Bastin@ulg.ac.be Tel. F. Bastin, ULg,(32)(4) 366 94 74 Fax F. Bastin, ULg,(32)(4) 366 95 47







# **BMS-NCM NEWS**

No 51, January 15, 2005

NCW

### 1 BMS-EMS membership dues for 2005

Members are kindly asked to renew their membership as soon as possible. See informations at the end of this Newsletter (and the bank form included in this envelope). Many thanks!

### 2 Meetings, seminars, conferences

#### 2.1 January, 2005

#### ORBEL19, 19th Conference on Quantitative Methods for Decision Making January 27-28 2005 Louvain-la-Neuve

ORBEL is the annual conference of the SOGESCI-BVWB, the Belgian Operations Research Society. The conference is a meeting place for researchers, users and potential users of Operations Research, and will provide an unique opportunity to exchange information on quantitative techniques for decision making.

Further information is available on the web page http://www.poms.ucl.ac.be/orbel19. The prize for the best student thesis in operations research will also be awarded during the conference.

#### 2.2 March, 2005

#### Gesellschaft fuer Angewandte Mathematik und Mechanik GAMM 2005 , March 28 - April 1 Luxembourg

Dear Colleague,

We like to draw your attention to the 76th Annual Meeting of the

Gesellschaft fuer Angewandte Mathematik und Mechanik GAMM 2005 in Luxembourg, March 28 - April 1

(Society of Applied Mathematics and Mechancis, http://www.gamm-ev.de/english/Gamm\_eng/gamm.htm), General information and online registration are available at http://www.uni.lu/GAMM2005. Do not forget to reserve a hotel room soon, since hotels will be booked out quickly because of the European presidency of Luxembourg in 2005.

We look forward to meeting you in Luxembourg! Kind regards,

Carine Molitor-Braun (President of the Société Mathématique du Luxembourg and member of the local organising committee of GAMM 2005)

#### 2.3 May, 2005

#### JOINT BeNeLuxFra CONFERENCE in MATHEMATICS

#### JOINT MEETING OF THE BELGIAN (BMS), DUTCH (KWG), LUXEMBOURG (SML) AND FRENCH (SMF) MATHEMATICAL SOCIETIES

May 20-22, 2005

University of Gent, Belgium

See the first announcement at the end of the previous Newsletter (November 15, 2004).

# ADVANCED COURSE ON POLYTOPE CONSTRUCTIONS Monday to Friday, May 23-27, 2005

U.L.B.

A one-week, advanced course will be delivered in Brussels, during next May.

#### Lecturers

- Prof. Günter M. Ziegler (TU Berlin), http://www.math.tu-berlin.de/~ziegler/
- Prof. Michael Joswig (TU Darmstadt), http://www.math.tu-berlin.de/~joswig/

#### Location

Université Libre de Bruxelles, Campus de la Plaine, http://www.ulb.ac.be/docs/campus/plaine.html

More information on the course contents is provided below.

The course is open to all people interested, although preliminary registration will be mandatory. To manifest your possible interest in future registration, please send a (short) e-mail to pleroy@ulb.ac.be

There will be no charge (except for tea and coffee breaks, and for possible course material), but no support is available.

The second announcement will be sent in January to people having replied to this first announcement, will contain more practical details and will announce a deadline for registration.

Jean-Paul Doignon, doignon@ulb.ac.be Département de Mathématiques, Université Libre de Bruxelles

More information

• Schedule: two morning lectures of 75 min starting at 9:30am. In the afternoon, exercise and problem sessions (including an introduction to the POLYMAKE software project) are conducted by Nikolaus Witte and/or Thilo Schröder (TU Berlin).

• Topics:

3-dimensional polytopes, circle packings, proofs of Steinitz'Theorem. Deformed products and long paths. f-vectors of four-polytopes. Projected products of polytopes. Convex hull algorithms. Constructions of bad examples. Polytope propagation: an inductive construction of polytopes. Application to statistical models.

• Abstract:

Polytopes are concrete geometric objects. Interesting examples abound, which can and should be constructed, analyzed, visualized, and modified explicitly, "by hand", or with computer support (via the POLYMAKE system).

This course is intended as a "hands-on" introduction to polytopes. We will look at various interesting and new constructions, at examples they produce, and at methods and tools for analysis and visualization. Topics will include a construction of 3-dimensional polytopes via circle packings, the visualization of polytopes via Schlegel diagrams, and the generation of "extremal" polytopes via subtle variations of the standard product construction. The final two lectures are devoted to algorithmic aspects.

#### 2.4 June 2005

#### 4th Kortrijk Conference on Discrete Groups and Geometric Structures, with Applications May 31 - June 3, 2005 Oostende, Belgium

The conference site will be at Hotel Royal Astrid, http://www.royalastrid.com/ The following main speakers will give a one hour talk:

- Oliver Baues (Univ. Karlsruhe),
- Yves Benoist (ENS, Paris),
- Martin Bridson (Imperial College, London),
- Benson Farb (University of Chicago)

- Oscar Garcia-Prada (Univ. Comp. Madrid)
- Etienne Ghys (ENS, Lyon)
- Domingo Toledo (Univ. of Utah, Salt Lake City)

#### Scientific Committee

- Yves Felix (U.C.Louvain, Louvain-la-Neuve)
- William Goldman (Univ. of Maryland, College Park)
- Fritz Grunewald (H.Heine Univ., Duesseldorf)
- Paul Igodt (K.U.Leuven / Kortrijk)
- Kyung Bai Lee (Univ. of Oklahoma, Norman)

Organisers: Karel Dekimpe, Yves Felix, Paul Igodt, Hannes Pouseele

All further information (programme, registration, abstract proposal, poster-session, short talks, proceedings,...) is found at the conference website: http://www.kulak.ac.be/workshop

#### 2.5 September 2005

#### IVth International Workshop on Functional Analysis September 5-9, 2005 Esneux, Belgium

The IVth International Workshop on Functional Analysis will take place on September 5-9, 2005, Esneux, Belgium , in honour of the 65th birthday of Professor Jean Schmets (University of Liège). More information will be available in future Newsletters.

S. Dierolf, J. Wengenroth (University of Trier) F. Bastin (University of Liège) Contact: F.Bastin@ulg.ac.be

#### 2.6 November 2005

#### Mathematical Analysis Day November 10, 2005 Ghent University

At the occasion of his retirement and his 65th birthday, the Clifford Research Group of Ghent University will honour its founder Richard Delanghe by a one day symposium "Mathematical Analysis Day".

Date: Thursday the 10th of November, 2005

Venue: "Het Pand", Onderbergen, 9000 Gent

Speakers: Christiane Carton-Lebrun, Simone Gutt, Jean Schmets, Walter Van Assche, Jan Van Casteren, Frank

Welcome coffee at 09:30, Lunch at 13:00, Closing reception at 17:00

You are all cordially invited to attending (free of charge). Please register by sending an email to nds@cage.ugent.be with subject line: MAD-registration

The organizers Fred Brackx, Hennie De Schepper, Frank Sommen Ghent University, Department Mathematical Analysis Clifford Research Group Galglaan 2, B-9000 Gent, Belgium

#### 2.7 2006

#### International Congress of Mathematicians 22–30 August 2006 Madrid, Spain

#### TO ALL MEMBERS OF EUROPEAN SOCIETIES OF MATHEMATICS

Dear colleague,

As you know we have already crossed the border of -2 years till the celebration of the ICM 2006 in Madrid. All the up-to-date information about this event can be found in the Web page http://www.icm2006.org

Very soon we will start distributing relevant information concerning the organization y registration for the ICM among all pre-registred people. The pre-registration process is open and we want to invite you to pre-register through the web page to keep timely informed about the ICM. We want to make the ICM a big success and we cannot do it without the participation of as many mathematicians as possible. Thus we invite you to pre-register now for the ICM.

Looking forward seeing you in the ICM,

Manuel de Leon, President of the Organizing Committee of ICM Carlos Andradas, Vicepresident Facultad de Matematicas, Univ. Complutense, 28040 Madrid tfno. +34 913 944 937; fax +34 913 945 027

# 3 Summary of PhD theses

Leuven, September 24, 2004 Some robust and semi-parametric methods in extreme value theory Björn Vandewalle Promotor: J. Beirlant

The topic of research described in the thesis is situated within the domain of extreme value statistics. Here, in contrast to classical statistics, emphasis lies on the modelling of extreme events, i.e. events with a low frequency, but mostly a high and often disastrous impact. As such, extreme value statistics deals with the estimation of quantities that are related to the tail of a distribution.

Numerous areas where extreme value statistics have become increasingly important can for instance be found in hydrology, industry, actuarial science, finance, structural engineering, telecommunication, environmental research, meteorology and geology. In each of these cases, a common feature of the extreme events under interest is that not many events of similar magnitude have been observed before, that is if any have been observed at all. As a result, inference based on the classical empirical distribution and quantile function often becomes unreliable and troublesome when considering the analysis of extreme events.

Extreme value statistics however is based on the fact that under rather mild conditions a class of functions can be considered to fit to the distribution of the largest observation in a sample. From this limit theorem, it can be seen that that the tail behaviour of a distribution function can be completely characterized by a single shape parameter, called the extreme value index. Based on the sign of this extreme value index, the domain of attraction of the extreme value distribution can be divided into three subclasses. In this thesis, we concentrate on the estimation of the extreme value index and derived quantities in case of heavy-tailed or Pareto-type distributions (positive extreme value index). We also treat related subjects in bivariate extreme value statistics.

A first chapter comprises the study of robust univariate extreme value statistics. Where extreme data are often down-weighted in robust statistics, in an extreme value approach these observations often receive most attention. As such, the objectives of a robust statistical analysis and of an extreme value analysis apparently are contradictory. Nevertheless, the study is motivated by a soil database quality management project, where in the background of Pareto-type tails, automatic identification of suspicious data is needed.

In a second chapter, we consider the study of univariate extreme value statistics in the background of certain (re)insurance applications, more specifically in relation to the calculation of premiums for reinsurance policies in excess of high retention levels. Special attention is paid to Wang's premium principle, as a generalization to the popular net premium principle in reinsurance. Through these principles, estimators of small exceedance probabilities allow for the correct estimation of reinsurance premiums. Next to the construction of estimators of small exceedance probabilities and reinsurance premiums, we also consider the corresponding asymptotic results.

A last chapter concerns the study of bivariate extreme value statistics, more exactly with respect to the modelling of the dependence structure between extreme observations of two different variables. Recently, new methods have been developed for the estimation of extreme failure probabilities which are based on a more accurate (Pareto-type) model for joint extreme events. In this model, the order of magnitude of the probability of such joint extreme events is characterized by so-called coefficient of tail dependence, which gives rise to the study of suitable estimators of this measure of extremal dependence. A new estimation method is suggested, which is robust against certain deviations of the above mentioned model.

#### Leuven, September 23, 2004 Homogeneous spaces and holonomic differential equations Boris Doubrov Promotor: L. Verstraelen and B. Komrakov (Minsk)

The thesis is devoted to the application of homogeneous spaces and cartan connections to the geometry of holonomic differential equations, and, in particular, of systems of ordinary differential equations. Using the technique of nilpotent differential geometry, we prove that there is a canonical Cartan connection associated with any holonomic differential equation of sufficiently high order. We study the case of a single ordinary differential equation in more detail and provide explicit formulas for generators in the algebra of all contact invariants. In particular, this gives an explicit criterium when a given ordinary differential equation can be brought to the trivial equation by some contact transformation. We discuss also algorithms for computing such equivalence transformations explicitly. Finally, we introduce the class of equations with transitive Lie algebras of contact symmetries and classify such equations in the case of a single ODE.

#### Leuven, September 29, 2004 An observational study of line-profile variable B stars in multiple systems Katrien Uytterhoeven Promotor: C. Aerts and J. Telting

We analysed the pulsational behaviour of the line-profile variable binary components of  $\kappa$  Scorpii ,  $\lambda$  Scorpii and  $\varepsilon$  Lupi. Our research is situated in framework of a systematic long-term project of line-profile variable B stars in close binary systems, with the aim to search for tidally induced oscillations. Major unsolved questions in the understanding of stars concern the role, if any, of binarity and rotation on stellar pulsation-mode selection and on the enhancement of pulsation-mode amplitudes. De target stars  $\kappa$  Scorpii and  $\varepsilon$  Lupi did not allow a search for forced oscillations. We found a negative result in the case of  $\lambda$  Scorpii.

We also studied the line-profile variations of the confirmed  $\beta$  Cephei stars  $\kappa$  Scorpii and  $\lambda$  Scorpii in detail in the broader context of a seismic study. As the interior of stars is not directly observable, accurate information is gathered from stellar oscillations which penetrate deep inside the star and whose behaviour is uniquely determined by the properties of the overall stellar structure. It is of utmost importance to identify with accuracy the pulsational frequencies and wavenumbers of the pulsation modes. We explained the observed lineprofile variability of  $\kappa$  Scorpii in terms of a dominant non-radial pulsation mode in combination with a rotational modulation effect. We detected the presence of multiperiodic non-radial pulsations in the star  $\lambda$  Scorpii, but we could only accurately identify the main mode.

We propose the secondary of  $\varepsilon$  Lupi as a new  $\beta$  Cepheistar. The status of the primary of  $\varepsilon$  Lupi remains suspected  $\beta$  Cepheistar.

High-resolution spectroscopy allows a detailed analysis of small line-profile changes. Techniques have been proposed to disentangle composite spectra, among which the KOREL code. It is unclear if the line-profile variability is preserved well after disentangling. We tested the performance of KOREL by means of the testcase  $\kappa$  Scorpii. We concluded that the disentangling technique is a powerful tool as intermediate step in the studies of the high-amplitude line-profile variability in early-type stars.

#### UCL, Faculté des Sciences Appliquées, Lundi 20 décembre 2004 à 14h

#### Model reduction of linear systems: an interpolation point of view

Antoine VANDENDORPE Ingénieur civil en mathématiques appliquées Promoteur: P. van Dooren

The modelling of physical processes gives rise to mathematical systems of increasing complexity. Good mathematical models have to reproduce the physical process as precisely as possible while the computing time and the storage resources needed to simulate the mathematical model are limited. As a consequence, there must be a tradeoff between accuracy and computational constraints. At the present time, one is often faced with systems that have an unacceptably high level of complexity. It is then desirable to approximate such systems by systems of lower complexity. This is the Model Reduction Problem. This thesis focuses on the study of new model reduction techniques for linear systems. Our objective is twofold. First, there is a need for a better understanding of Krylov techniques. With such techniques, one can construct a reduced order transfer function that satisfies a set of interpolation conditions with respect to the original transfer function. A study of the generality of such techniques and their extension for MIMO systems via the concept of tangential interpolation constitutes the first part of this thesis. This also led us to study the generality of the projection technique for model reduction. Most large scale systems have a particular structure. They can be modelled as a set of subsystems that interconnect to each other. It then makes sense to develop model reduction techniques that preserve the structure of the original system. Both interpolation-based and gramian-based structure preserving model reduction techniques are developed in a unified way. Second order systems that appear in many branches of engineering deserve a special attention. This constitutes the second part of this thesis.

Members of the jury:

MM P. Van Dooren (ANMA), promoteur, Y. Genin (Prof. émérite FSA), J. Willems (Prof. KULeuven), A. Bultheel (Prof. KULeuven), K. Gallivan (Prof. Florida State University), and V. Blondel (INMA), President

### 4 Miscellaneous

#### 4.1 From ULB

Simone Gutt (ULB) has been elected member of the Académie Royale de Belgique, Classe des Sciences.

#### 4.2 From Liège

Call for Nominations Prizes of the Liege Royal Society of Sciences

The Liege Royal Society of Sciences calls for nominations for prizes awarded by a foundation honouring the 150th anniversary of its foundation. These international prizes are intended for researchers less than thirty-five years of age.

Four prizes of 2,500 EUR each will reward a corpus of work published either by a single author or in collaboration. One of the four prizes, in honour of Lucien Godeaux, will be awarded in the field of mathematics.

Requests for information on how to make nominations should be directed to: Professor J. Aghion, c/o Secretariat of the Royal Society of Sciences of Liege, Institute of Mathematics of the University of Liege, 12 Grande Traverse, Sart Tilman Bat. B 37, B-4000 Liege 1, Belgium (e-mail: jaghion@ulg.ac.be).

The deadline for applications is October 1st, 2005.

#### 4.3 Balzan Prize

Pierre Deligne received the 2004 Balzan Prize (more information can be found at the addresses http://www.balzan.com/en/preise/preisgebiete2004.cfm and http://www.balzan.it ).

The other mathematicians who won this prize since 1961 are Andrej Kolmogorov (1962), Enrico Bombieri (1980), Jean-Pierre Serre (1985), Otto Neugebauer (1986), Armand Borel (1992), Robert McCredie May (1998), Mikhael Gromov (1999)

#### 4.4 From the EMS

Dear President of a National Mathematical Society, or whom it may concern

As you know, every year the European Mathematical Society allocates funds to support mathematicians from East European countries. In previous years also mathematicians from Central European countries were eligible for this support, but after most of these countries joined the European Union in May 2004, their mathematicians are no more eligible for it.

The support is primarily intended to cover travel expenses of East European mathematicians traveling from their home country to a conference in some other European country. The chances of such applications are highest if the importance of the presence of the applicant is proven by the promise of the organizers to cover local expenses of the applicant at the event, or at least to wave the conference fee. In exceptional cases support can be granted also to East European mathematicians traveling to research stays in other European countries or to conferences organized in eligible countries.

The annual budget of the Committee for Support of East European Mathematicians is 10 K euro. I am adding this information so that the applicants may themselves estimate what could be a reasonable sum to apply for.

In the year 2005 we will be deciding about the applications in two rounds. In February applications for the period till August 2005 will be considered, the rest of the year will be considered in June 2005. The deadlines for the applications are January 15, 2005 for the first round and May 31, 2005 for the second one. The applications may be sent to the secretary of EMS Ms. Makelainen or directly to me.

Please, be so kind and distribute this information within your society so that it reaches the widest range of possible applicants.

With best regards and wishes of successful New Year

Jan Kratochvil

Chair of the EMS Committee for Support of East European Mathematicians for 2005-2008 e-mail: honza@kam.mff.cuni.cz, phone: +420-221914234

Address:

Department of Applied Mathematics, Charles University Malostranske nam 25, 118 00 Praha 1, Czech Republic

# 5 The end $\ldots$

Two people are flying in a hot air balloon and realize they are lost. They see a man on the ground, so they navigate the balloon to where they can speak to him. They yell to him

- "Can you help us-we are lost."

The man on the ground replies

- "You are in a hot air balloon, about two hundred feet off the ground."

- "You must be an actuary. You gave us information that is accurate, but completely useless."

The actuary on the ground yells to the people in the balloon:

- "You must be in marketing."

They yield back:

- "Yes, how did you know?"

The actuary says:

- "Well, you are in the same situation you were in before you talked to me, but now, it's my fault."

What is the difference between an introverted actuary and an extroverted actuary? An introverted actuary stares at his own feet during a conversation, while an extroverted one stares at the other person's feet. **CENTRE INTERFACULTAIRE BERNOULLI - CIB** Prof.Tudor Ratiu – Director EPFL SB CIB-GE AAC. 034 (Bâtiment AAC) Station 15 CH - 1015 Lausanne (Suisse) e-mail : christiane.depaolapfl.ch



# C I B <u>CENTRE INTERFACULTAIRE BERNOULLI</u>

### CALL FOR PROPOSALS

The CIB (Centre Interfacultaire Bernoulli) funded jointly by the Swiss National Science Foundation and the Swiss Federal Institute of Technology in Lausanne started its activity in March 2002.

Its mission is to support research in mathematics and its applications, to organize and host thematic programs, to provide a supportive and stimulating environment for researchers, and to launch and foster collaborations between mathematicians working in different areas, as well as mathematicians and other scientists.

The CIB launches a call for proposals of six one-semester programs during the **period July 1**, **2006 - June 30**, **2009**.

At this stage only brief letters of intent are needed. All interested in submitting letters of intent are encouraged to follow the instructions and to send them in pdf format to the address

christiane.depaola@epfl.ch

for more information, please visit our website <u>http://cibsrv2.epfl.ch/recruiting/</u>

# Informations concerning memberships

# BMS and EMS membership dues for 2005

All members of the Belgian Mathematical Society are kindly invited to pay their contribution for 2005. Members receive the *Bulletin of the Belgian Mathematical Society* - Simon Stevin (4 issues + 1 supplement) and the newsletter. Members of the EMS also receive the newsletter of the European Mathematical Society. The membership fees for 2005 are as follows:

- 18 euro (ordinary member BMS)
- 15 euro (reciprocity member BMS)
- 38 euro (ordinary member BMS+EMS)
- 35 euro (reciprocity member BMS+EMS)

Members residing in Belgium preferably pay by bank transfer, on the account 000-0641030-54, BMS, CP218/01 Boulevard du Triomphe, 1050 Brussels.

Members living in another country of the eurozone preferably pay by bank transfer on account number IBAN BE 42 0000 6410 3054; BIC BPOTBEB1.

Members living outside the eurozone are requested to pay by creditcard.

New members, members paying by creditcard and members whose address or email has changed are requested to fill in the Membership Application Form or to register on line at http://bms.ulb.ac.be/membership/appl-form.php.

# **Reciprocity** agreements

#### With the VVWL

Members of the BMS are allowed the reciprocity membership of 20 EURO (for 2005) of the "Vlaamse Vereniging voor Wiskundeleraars". The payment should be made on the account 000-1116247-68, C. Huysmanslaan 60/Bus 4, B-2020 Antwerpen. For more information about the VVWL, see http://users.pandora.be/beatrijs.versichel1/.

#### With the SBPMef

Members of the BMS are allowed the reciprocity membership of 17 EURO (for 2005) of the "Société Belge des Professeurs de Mathématique d'expression française". The payment should be made on the account 000-0728014-29, SBPMef, rue de la Halle, 15, B-7000 Mons. For more information about the SBPMef, see http://www.sbpm.be.

#### With the AMS

BMS members, residing outside of the US at the time of billing, are allowed the reciprocity membership of the "American Mathematical Society" at the reduced rate of 76 USD (for 2005). Privileges of membership include discounts of 20%-50% on most AMS publications purchased for personal use only. Subscriptions to the *Notices* and *Bulletin* are included as part of the membership. For further information, see http://www.ams.org.

#### With the SMF

Members of the BMS are allowed the reciprocity membership of 32 EURO (for 2005) of the "Société Mathématique de France". This membership includes a free subscription to the *Gazette des Mathématiciens*. In addition, SMF members can subscribe to the Journals of the SMF at membership prices:

1. Officiel des Mathématiques	$\dots 22 euro$
2. Bulletin	91 euro
3. Bulletin électronique	$\dots 82 \text{ euro}$
4. Mémoires	$\dots 69 euro$
5. Bulletin + Mémoires	160 euro

6. Astérisque (12 issues)	$\dots 294 \text{ euro}$
7. Histoire des Mathématiques	$\dots 43 euro$
8. Histoire des Mathématiques électronique	
9. Panoramas et Synthèses	
Membership and subscription to one or more journals can be paid on the account of the Belgian	n Mathemat-
ical Society, 000-0641030-54, or - preferably - directly to	
Société Mathématique de France	
bank number : 5215Z020	
IBAN : FR36 3004 1000 0100 0521 5Z02 086	
$\operatorname{BIC}:\operatorname{PSSTFRPPPAR}$	
IHP, 11 rue Pierre et Marie Curie	
75231 Paris cedex 05, France	
Clearly indicate the names of the journal(s) that you are ordering. For further information, see http:	//smf.emath.fr.

#### With the DMV

Members of the BMS residing outside Germany are allowed the reciprocity membership of 16 EURO (for 2004) of the "Deutscher Mathematiker-Vereinigung". Membership includes free subscription to *Mitteilungen der DMV*, discounted fees for DMV meetings and liability to subscribe to the following journals at reduced prices:

- 1. Jahresbericht
- 2. Mathematische Semesterberichte
- 3. Documenta Mathematica
- 4. Proceedings of the ICM 1998

To apply for membership of the DMV, send an e-mail to dmv@wias-berlin.de and ask for a membership application. More information can be found on http://www.mathematik.uni-bielefeld.de/DMV/.

#### With the LMS

A reciprocity agreement exists between the BMS and the "London Mathematical Society". Members of the BMS are allowed the reciprocity membership of 16 GBP (for 2005); the LMS council reserves the right to consider each application individually. Membership includes free subscription to the London Mathematical Society Newsletter, and liability to subscribe to the journals of the LMS at reduced prices:

1.	Bulletin	0.00	GBP
2.	Journal	0.00	GBP
3.	Proceedings	0.00	GBP
4.	JCM (electronic)		Free
5.	Nonlinearity	4.00	GBP
6.	J. Applied Probability	3.00	GBP
7.	Quarterly J. Mathematics	0.00	GBP
8.	Math. Proc. Camb. Phil. Soc	2.75	GBP
9.	Glasgow Math. J	5.00	GBP
10	). Journal of the EMS	0.00	GBP

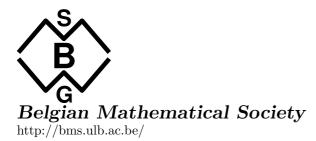
For further information on application for membership, see http://www.lms.ac.uk/.

#### With the RSME

Members of the BMS are allowed the reciprocity membership of 21 EURO (for 2005) of the "Real Sociedad Matemática Española". Membership includes full subscription to *La Gaceta de la RSME*. The membership fee can be paid on the account of the BMS, 000-0641030-54, or - preferably - directly to the RSME: Bank name: BBVA; Account holder; Real Sociedad Matemática Española; BIC:BBVAESMMXXX; IBAN: ES46 0182 5906 8000 1150 3192. For more information, see http://www.rsme.es.

#### With the WG

Members of the BMS are allowed the reciprocity membership of 50 EURO (for 2005) of the "Wiskundig Genootschap". Membership includes free subscription to *Nieuw Archief voor Wiskunde* and *Elektronische Mededelingen van het Wiskundig Genootschap*. More information about the WG can be found on http://www.wiskgenoot.nl. One can register online at http://www.wiskgenoot.nl/wordlid/aanmelding.php.





European Mathematical Society

http://emis.de/

Be a member of the Belgian Mathematical Society (BMS) and of the European Mathematical Society (EMS)

#### As a member of the BMS

You will receive five times a year **BMS-NCM NEWS**, the Newsletter of the **BMS** and of the National Committee for Mathematics (**NCM**), containing information on what's going on in mathematics in Belgium.

You will receive the "Bulletin of the BMS - Simon Stevin", a periodical containing peer reviewed papers as well as book reviews.

You will benefit of reciprocity agreements with the AMS, DMV, LMS, RSME, SMF, SBPMef, VVWL, WG.

#### As a member of the EMS

You will receive a Newsletter of high interest containing papers, interviews, European meeting announcements, book reviews, ... For more information: see http://emis.de

#### As a member of the BMS and the EMS

You are taking part in the mathematical life in Belgium and in Europe.

You give the two Societies the possibility to develop their actions: organizing meetings and lobbying with the authorities.

You provide more strength to the two Societies, enabling them to promote mathematics and its financing.

#### The BMS and the EMS help you

The **BMS** has conceived and promoted the on line access to the **Zentralblatt** in the Belgian Universities. The **EMS** seeks to promote mathematics in the program of the European Union.

#### BMS and EMS membership dues for $2005^1$

<b>BMS</b> membership:	EUR 18.00
BMS + EMS membership:	EUR 38.00

#### Activities of the BMS and of the EMS

The **BMS** has been active in organizing international congresses. **1996** Antwerp: joint meeting with the AMS and the three BeNeLux Societies. **1999** Brussels: joint LMS-**BMS** meeting. **2001** Liège: joint DMV-**BMS** meeting. **2003** Brussels: conference on Mathematics and Genomics. **2004** Tilburg: joint conference with the Dutch Mathematical Society. **2005** Gent: joint meeting with SMF and the three BeNeLux Societies.

The **BMS** and the National Committee for Mathematics have published official standpoints in the BaMa discussion and in the use of the Science Citation Index and Impact Factors for the evaluation of mathematicians. This has been approved by the **EMS**.

The activities of the **EMS** are numerous and of high quality with the organization of a Congress every four years (Paris in 1992; Budapest in 1996; Barcelona in 2000; Stockholm in 2004 and Amsterdam in 2008), with the Forum Mathématique Diderot, with the publication of the **Journal of the EMS**. The **EMS** has also created its own publishing house and offers a large and well-maintained collection of non-commercial journals and books on **EMIS**, the European Mathematics Information Service (www.emis.de).

#### Committee of the BMS

Adhemar Bultheel (KUL)(president), Catherine Finet (UMH)(vice-president), Jan van Casteren (UIA)(secretary), Stefaan Caenepeel (VUB) (treasurer), Hendrik Van Maldeghem (RUG) (editor in chief of the Bulletin), Françoise Bastin (ULg), Eva Colebunders (VUB), Pierre Bieliavsky (ULB), Camille Debiève (UCL), Philippe Cara (VUB), Freddy Dumortier (LUC), Yves Felix (UCL)(Book Review Editor), Paul Godin (ULB), Albert Hoogewijs (RUG), Christian Michaux (UMH), Jean Schmets (ULg), Philippe Toint (FUNDP), Michel Van den Bergh (LUC), Lieven Vanhecke (KUL), Fred Van Oystaeyen (UIA), Marc Willem (UCL)

<sup>&</sup>lt;sup>1</sup>Dues are to be paid on account number **000-0641030-54** 

Belgian Mathematical Society, Campus Plaine, CP. 218/01, Bld. du Triomphe, B-1050 Brussels.

# Membership Application/Renewal Form

to be sent to Belgian Mathematical Society c/o Jan van Casteren Campus Plaine, CP. 218/01 Bld. du Triomphe, B-1050 Brussels. Please check your label for actual information about your membership.

New members, members paying by creditcard and members whose address or email has changed are requested to fill in this Membership Application Form or to register online at http://bms.ulb.ac.be/membership/appl-form.php

Please tick the appropriate lines:

 $\Box$  I want to be an ordinary member of the **BMS** (EUR 18.00).

 $\Box$  In addition to my BMS membership, I want to be a member of the EMS (add EUR 20.00).

 $\Box$  I do not agree that the Newsletter BMS-NCM News be sent to me by e-mail.

 $\Box$  I do not agree that my affiliation and e-mail address are published.

 $\Box$  I do not agree that my affiliation and e-mail address are made available on the web site of the BMS.

Date:

Cardholder's signature: