

# BELGIAN MATHEMATICAL SOCIETY 

Comité National de Mathématique CNM


NCW
Nationaal Comite voor Wiskunde


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

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## Letter from the editor



Best wishes to each of you for this New Year.

Welcome to the January 15, 2006-Issue of our Newsletter!

Françoise Bastin

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## 1 News from the BMS

Please find enclosed the leaflet concerning the renewal of your BMS Membership (2006). Thank you for your attention!

## 2 Meetings, Conferences, Lectures

### 2.1 January 2006

55th European Study Group Mathematics with Industry (SWI2006), Eindhoven.
The 55th European Study Group Mathematics with Industry (ESGI55 or SWI2006) will be held at the Technische Universiteit Eindhoven from January 30 to February 3, 2006. Please visit the website for more information and register at: http://www.win.tue.nl/swi2006/

We hope to see you at the study group in Eindhoven, the organising committee.
(Erik Fledderus, Remco van der Hofstad, Ellen Jochemsz, Jaap Molenaar, Tim Mussche, Mark Peletier and Georg Prokert.)

## Lectures by R. Roussarie at the Universiteit Gent

(Dept. of Pure Mathematics, Galglaan 4, building S22)
In the period January-March 2006, Robert Roussarie (Université de Bourgogne) will stay at the VLAC (Vlaams Academisch Centrum) of the KVAB (Koninklijke Vlaamse Academie van België) to work with Freddy Dumortier on an extension of their results concerning limit cycles in two-dimensional singular perturbation problems. During this period R. Roussarie will give a series of lectures at the Universiteit Gent:

1. Geometric study of slow-fast systems.
(Wednesday 01.02.2006 and Wednesday 08.02.2006, 14:30-16:30)
2. Some differential equations of ecology.
(Tuesday 28.02.2006, 10:30-12:30 and 14:30-16:30)

## Everyone is cordially invited.

The lectures are meant to serve as an introduction to the subject, destinated to a broad audience of people interested in the study or in the use of ordinary differential equations. For an abstract of the talks we refer to http://www.uhasselt.be/dysy/

For more information contact Andre.Vanderbauwhede@Ugent.be.

### 2.2 March 2006

On Friday 17.03.2006 will be organized at the KVAB (Koninklijke Vlaamse Academie van België) a 1-day meeting<br>Trends in Dynamical Systems<br>(Organizers: Freddy Dumortier, Dirk Roose and Andre Vanderbauwhede).

## Program:

```
9:30-10:00 Welcome and coffee.
10:00-11:00 J. Hofbauer(University College London)
    "To persist or not to persist."
11:00-12:00 H.O. Walther(Universität Giessen)
    "State-dependent delays, linearization, and periodic solutions."
12:00-13:30 Lunch
13:30-14:30 B. Krauskopf(University of Bristol)
    "Semiconductor lasers as dynamical systems"
14:30-15:30 R. Roussarie(Université de Bourgogne)
    "Slow divergence integral and multiple canard cycles"
15:30-16:00 Coffee.
16:00-17:00 A. Chenciner(Université ParisVII)
    "Unchained polygons and the n-body problem"
17:00-18:00 Drink
```


## Everyone is cordially invited.

A lunch will be offered to the participants, free of charge. In view of the lunch and the coffee we would like to ask you to inform us, as soon as possible, about your intention to participate, by sending a short notice to freddy.dumortier@uhasselt.be. The meeting is destinated to a broad audience of people interested in getting informed about some recent results and ideas in dynamical systems, more especially systems described by differential equations. The meeting might also be interesting for PhD -students.

For extra information on the meeting, including the abstracts of the talks, see http://www.uhasselt.be/dysy/

### 2.3 May 2006

CANT'2006 International School and Conference on Combinatorics, Automata and Number Theory Belgium, University of Liège, Department of Mathematics May 8-19, 2006

Aim:
The proposed international school is aimed at presenting and developing recent trends in Combinatorics (with emphasis on Combinatorics on Words), Automata Theory and Number Theory. On the one hand, the newest results in these areas shall benefit from a synthetic exposition, and on the other hand, emphasis on the connections existing between the main topics of the school will be sought. Concurrently to the school, there will be an international conference focusing on the same topics. Courses and lectures will be organized in the morning, while the afternoon sessions will be devoted to the conference.
Main Invited Speakers:
J.-P. Allouche (CNRS, Univ. Paris-Sud), Y. Bugeaud (Univ. of Strasbourg), F. Durand (Univ. of Picardie, Amiens), P. Grabner (Techn. Univ. of Graz), J. Karhumäki (Turku Univ.), H. Prodinger (Univ. of Stellenbosch), J. Sakarovitch (CNRS, ENS Télécom.), J. Shallit (Univ. of Waterloo), B. Solomyak (Univ. of Washington), W. Thomas (RWTH Aachen).
Format:
Five invited lecturers per week. Participants can decide to attend to one of the two weeks of this event. Talks will be selected on the basis of an extended abstract (max. 6 pages). Deadline for the submission of abstracts: April 1st, 2006. More details will be available in due time on the conference web site.

Organising Committee: V. Berthé (CNRS, Montpellier), M. Rigo, P. Lecomte (Liège).
Location: Institute of Mathematics, University of Liège, Belgium.
Information: e-mail: M.Rigo@ulg.ac.be
Web site: http://www.cant2006.ulg.ac.be

### 2.4 August 2006

See the announcement at the end of this Newsletter for the meeting
Evolution Equations 2006
in the memory of G. Lumer

## $2.5 \quad 2008$

5ECM, July 14-18, 2008<br>5th EUROPEAN CONGRESS of MATHEMATICS

Informations can be found at the address
http://www.5ecm.nl

## 3 Summary of PhD theses

An De Wispelaere, UGent, defended her thesis last December. Here is the summary she communicates. Let us mention that she also received a prize for " best poster" on the occasion the PhD-day last September.

## Ovoids and spreads of finite classical generalized hexagons and applications

From October $1^{s t}$ 2002 on the FWO granted me the financial support to work on a PhD thesis at Ghent University. The process of writing this thesis - under the excellent guidance of my promoter Hendrik Van Maldeghem - was a unique experience, one which I will carry with me for the rest of my life. This first step in my academic career officially ended a few weeks ago with my PhD defense on December $16^{\text {th }}$. My thesis, which lies in the field of finite geometry, is centered on the notion of generalized hexagons.

One could intuitively describe a generalized hexagon as a point-line geometry that is full of ordinary hexagons, but contains no ordinary $n$-gons for $n<6$. We say that a generalized hexagon has order $(s, t)$ if every point is on $t+1$ lines and every line contains $s+1$ points. The main result of my PhD Thesis is undoubtedly the construction of three new examples of distance-2 ovoids (a set of non-collinear points that is uniquely intersected by any chosen line) in $\mathrm{H}(3)$ and $\mathrm{H}(4)$, where $\mathrm{H}(q)$ belongs to a special class of order $(q, q)$ generalized hexagons. The numerous applications of these objects illustrate the need for further research on this topic. For instance they are naturally linked to two-character sets and one of these examples has lead to the construction of a new infinite class of two-character sets. These two-character sets in turn give rise to new strongly regular graphs and new two-weight codes, which is why I dedicate a whole new chapter on codes arising from small generalized hexagons. By considering the $(0,1)$-vector space of characteristic functions within $\mathrm{H}(q)$, one easily obtains a one-to-one correspondence between every such a code and some substructure of points of the hexagon. In most cases a regular substructure can be viewed as the eigenvector of a certain ( 0,1 )-matrix and the fact that eigenvectors of distinct eigenvalues of this matrix have to be orthogonal often yields exact values for the intersection number of the according substructures. In my thesis I reveal some initial yet unexpected results to this particular technique, which urges us to further improve this approach. Furthermore I classify all distance- 2 and -3 ovoids (roughly speaking a maximal set of points spread out all over the hexagon) within $\mathrm{H}(3)$. As such we obtain a geometrical interpretation of all maximal subgroups of $\mathrm{G}_{2}(3)$, a purely geometric construction of a Geometry that is Almost a Building related to $\mathrm{G}_{2}(3)$, the first sporadic examples of ovoid-spread pairings and a transitive 1-system of $\mathrm{Q}(6,3)$. Research on derivations of this particular 1-system was followed by an investigation of common point reguli of different hexagons on the same $\mathrm{Q}(6, q)$, with yet again some nice applications as a result. Of these, the most important is the alternative construction of the Hölz design and an up until now undiscovered subdesign. Furthermore we theoretically prove that the only type of unitals in the Hölz design on 28 points are of Hermitian and Ree type (which was previously shown by Tonchev through a computer search). As these Hölz designs are one-point extensions of generalized quadrangles, we dedicate a final chapter of the thesis to the characterization of the affine extension of the split Cayley hexagon $\mathrm{H}(2)$ using a combinatorial property.

## 4 Miscellaneous

### 4.1 Call for contributions

SIAM is launching a call for a contribution to a website, see
http://www.whydomath.org

For more information on SIAM, see the pages at the address

### 4.2 From UMH

Le séminaire interuniversitaire de logique mathématique tient ses séances hebdomadaires le jeudi à 11h et à 14h30; le programme est disponible sur
http://math.umh.ac.be/logic/seminars.htm

### 4.3 From FUNDP

Une session de conférences pluridisciplinaires se tiendra aux Facultés Universitaires Notre-Dame de la Paix du 23 au 27 janvier 2006 sur le thème

Qu'est-ce que la vie?
Pour plus de renseignements, voir l'affiche à la fin de cette Newsletter.

### 4.4 Dictionary

New for winter 2005-2006:
Bilingual scientific dictionary publisher Editorial Castilla La Vieja has just released the

> Dictionary of Mathematics (English - Spanish / Spanish - English):

922 pages of terminology and example sentences in translation, covering all aspects of mathematics: applied mathematics, pure mathematics, algebra, statistics, geometry, arithmetic, calculus, game theory, topology, probability, trigonometry, economic theory, mathematics teaching and learning, and more.

More information is available on their website: www.EditorialCastilla.com

## 5 Maths and art, fiction, ...

Le $\operatorname{IAT}_{\mathrm{E}} \mathrm{X}$, Notions de base
Rémi Lambert


This book, written in french, is a step by step approach to $\mathrm{I}^{\mathrm{A}} \mathrm{TEX}_{\mathrm{E}}$ illustrated with numerous examples. Requiring no prior knowledge it introduces the basics of this no-cost word processing program and also allows the reader to create a high-level layout. Though initially intended for science students who have to write their Masters theses, this work can be used - with ease and reliability - for all simple reports of experiments as well as for PhD theses and scientific articles. The nonscientifically-minded can use this program for all correspondence, accounting documents, professional reports and any other textual compositions with a quality worthy of a professional printer. This introduction to $\mathrm{EA}_{\mathrm{E}} \mathrm{X}$ will provide the reader with enough knowledge to understand its additional packages and create algorithms, Feynman diagrams, complex graphics, protein sequences or any other particular composition.

The author is a Research Assistant at the Mathematics Department of the University of Liège and is in the process of preparing a PhD thesis in algebraic analysis.

For any information please contact Rémi Lambert directly (R.Lambert@ulg.ac.be) or the Mathematics Department of the University of Liège (dept.math@ulg.ac.be).

Michelle Emmer (ed.) Mathematics and culture II, Visual Perfection: Mathematics And Creativity, Springer, Berlin, 2005 (203 p.) ISBN 3-540-21368-6.


This is another English publication in the series Mathematics and Culture. Two other volumes were reviewed in this newsletter (number 50, November 2004). The idea about this series was set up by Valeria Marchiafava and Michele Emmer in 1997. There have been regular Italian issues every year since 2000. The last Italian volume has just appeared mid 2005 just as I am writing this review. The present volume and the two volumes that were reviewed earlier are the only ones that appeared in English until today. Some of the older Italian volumes will probably not be translated cover to cover because the present volume contains a number of papers that are translated from the Italian 2002
volume.
As it is clear from the subtitle, the main theme of the present book is mathematics and 'visual' arts. I include some illustrations, but many more can be found on the web. Some addresses are given in footnotes. Nineteen contributions are divided into three parts with the following headings: Mathematics, art and architecture; Visual mathematics and computer graphics; and Mathematics, literature and cinema. Although most of the authors are mathematicians, there are also contributions by psychologists, physicists, journalists, architects and artists.

I will give a selection of some of the papers in this book that I liked most, which reflects a purely personal taste which should not be used as a valuation of the papers.


In the architecture related papers, I liked the one about the evolution of tilings used in pavements. From the ancient pavements in churches to modern pavements designed by Carlo Scarpa. His pavement in the museum of the Palazzo QueriniStampalia which contains almost none of the symmetric modules (with very few exceptions like e.g. the one above appeared only one) of the 256 configurations that are possible in such a module consisting of 4 L -shaped tiles. This illustrates how the strict symmetry of the past can be bent towards some pleasing, more complex, asymmetry. Of course there is much more to be investigated in tilings. The examples are just illustrative. Muslim ornaments are a never ending source of tiling inspiration and these are not treated here since they are not needed to illustrate the point. If you are interested, a simple search on the web will give you dozens of beautiful patterns you can find in Muslim art. The figure on the left is for example inspired by a proof of the Pythagoras theorem by Abu'l Wefa (940 to 998).

Several of the other papers illustrate in other ways the similarity between the evolution in mathematics and arts. New developments like chaos theory and fractals can be found in the work of artists. For example, why does Jackson Pollock (1912-1956) drip-paintings ${ }^{1}$

[^0]have a fractal dimension of 1.9 , whereas fractal dimensions of 1.3 to 1.5 are generally accepted as 'pleasing'. Wouldn't the shape of the concept New Guggenheim museum ${ }^{2}$ by Gehry in New York have a fractal dimension between 1 and 2?

Also topology plays a role in arts. The Endless ribbon (2004) by Max Bill (19081994) is the best known example, but also the Moebius House (1993-1997) by the Dutch architect Ben van Berkel is very famous.

In the computer graphics part of the


Moebius House book, the first paper explains the ideas that were behind the design of the poster for the Math Awareness Month 2000. Each year it is the responsibility of one of the organizing societies (AMS, MAA, SIAM) to set up this month, and in 2000 it was the MAA who had to coordinate. As a theme they chose 'Math spans all dimensions'. The poster can be seen below. You can still use it with all its interactive possibilities if you surf to www.mathaware.org/mam/00/. While you are surfing, it is worth having a look at the other years as well (just change the ' 00 ' at the end in ' 01 ', ' 02 ', ... . The year 2003 had as its theme 'Mathematics and art'! The most recent is the year 2005 whose theme is 'Mathematics and the cosmos'.

Also topology is treated in several of the contributions. It is certainly an issue in the paper on minimal surfaces and surfaces with minimal curvature, and extreme networks. These do certainly appear in applications such as soap films, soap bubbles, and when studying membranes between two media (just like everything in this book is on the membrane between mathematics and art). A maximum of insight is given
 almost without any formula.

Computer graphics come really to the stage in papers dealing with rendering of realtime interactive computer animations, or with virtual sculptures produced with Mathematica $^{3}$, the publication of geometry objects ${ }^{4}$, or the metaphorical foundation of mathematical art as described by John Sims.

In part three, five articles are included, four of which are translations from an Italian paper. Here we find a 'proof' by Apostolos Doxiadis (the author of the successful novel Uncle Petros and Goldbach's conjecture, 2000) that the proof of a mathematical theorem and of the composition of a narrative are isomorphic. In my opinion his proof is not so convincing. More interesting though are the essays treating the increasing interest in literature and stage plays in mathematical subjects, or at least in characters that are mathematicians or are related to mathematics. The last contribution by M. Emmer is about Raymond Queneau (1903-1976) He has been called the creator of le nouveau roman a generation ahead of its time.

[^1]

Raymond Queneau

In 1960 Queneau and his friend Francois Le Lionnais founded the Oulipo (Ouvrior de Littérature Potentielle some members were Georges Perec, Jacques Roubaud et Italo Calvino) who invented constraining mechanisms to produce literature. For example, the method $S+7$ which replaces in an existing text every important word by the word that is found 7 places further in the dictionary. This is how Queneau transformed de La Fontaine's la Cigale et la Fourmi into Cimaise et la Fraction. Another famous example is George Perec's novel la Disparition in which not a single letter 'e' is used. To be a mathematician for him meant to be a reader of mathematical games (i.e., the column by Martin Gardner in Scientific American), or of the history of mathematics of of gross mathematical stupidities (the never ending steam of proofs for squaring the circle etc). Nevertheless, he became a member of the SMF in 1948 and wrote several essays about mathematics. He also wrote shortly before his death in 1976 Les fondations de la littérature d'apres David Hilbert which was an axiomatic approach to literature, a tranlation of Hilbert's Grundlagen der Geometrie, but where Queneau had replaced the words 'points', 'lines', 'planes' by 'words', 'sentences', and 'paragraphs' respectively. However his interest in mathematics was more than casual. He published one serious mathematical paper: Sur les suites s-additives, J. of Combinatorial Th. (A), vol. 12, pp.31-71, 1972 which appeared in an earlier form in the C.R. Acad. Sci., Paris, Sér. A 266, 957-958 (1968). Perhaps he considered this the most perfect example of literature with 'Oulipian' constraints.

avec la participation des conférenciers:
J.-M André (FUNDP), A. Brack (CNRS Orléans), T. Carletti (FUNDP), C. de Duve, lauréat Nobel (UCL), H. Le Guyader ( Université Pierre et Marie Curie,Paris), V. Fleury (Université de Rennes), D. Lambert (FUNDP), J.-M. Lehn, lauréat Nobel (Strasbourg), A. Lucas (FUNDP), D. Mange (Ecole Polytechnique,Lausanne), M. Morange (ENS, Paris), M. Milinkovitch (ULB, Gosselies), J. Reisse (ULB, Bruxelles), E.-G. Reynaud (EMBL Heidelberg), R. Rezshohazy (UCL, LLN), B-L Su (FUNDP), R. Thomas (ULB, Bruxelles), J. Vandenhaute (FUNDP), P. Van Dooren (UCL, LLN), M. Vidal (Harvard Medical school, Boston), J.-P. Vigneron (FUNDP), S. Vincent (FUNDP).

# First Annoucement and call for communications 

# Evolution Equations 2006: in the memory of G. Lumer 

## 28 August-1st September 2006

## Mons (Belgium) and Valenciennes (France)

URL address: http://www.univ-valenciennes.fr/lamav/eveq06

The aim of this conference is to bring together leading scientists from Mathematical Analysis, working on evolution equations and related topics. This conference is organized in the memory of our distinguished colleague and friend Günter Lumer that passed away in June 2005.

## Invited speakers:

The following invited speakers have already confirmed their participation:
A. Aibeche, Sétif, Algeria; F. Ali Mehmeti, Valenciennes, France; H. Amann, Zürich, Switzerland; W. Arendt, Ulm, Germany; B. Bäumer, Otago, New-Zeeland; J. von Below, Littoral, France; J. van Casteren, Antwerpen, Belgium; Ph. Clément, Delft, The Nederlands; G. Cœuré, Lille, France; G. Da Prato, Pisa, Italy; O. Diekmann, Utrecht The Nederlands; R. Dorroh, LSU, USA; J.-P. Gossez, ULB, Belgium; B. Gramsch, Mainz, Germany; K. P. Hadeler, Tübingen, Germany; M. Hieber, Darmstadt, Germany; M. Iannelli, Trento, Italy; V. Keyantuo, Puerto Rico, Puerto Rico; H. König, Saarbrücken, Germany; P. Malliavin, Paris, France; J. Mawhin, UCL, Belgium; R. Nagel, Tübingen, Germany; F. Neubrander, LSU, USA; L. Paquet, Valenciennes, France; B.-W. Schulze, Potsdam, Germany; J. Schmets, Liège, Belgium; R. Van Keer, Gent, Belgium; L. Weis, Karlsruhe, Germany.

## Organizing Committee:

Prof. J. von Below, ULCO, France; Prof. C. Finet, UMH, Belgium; Prof. J.-P. Gossez, ULB, Belgium; Prof. J. Loris-Teghem, UMH, Belgium; Prof. J. Mawhin, UCL, Belgium; Prof. C. Michaux, UMH, Belgium; Prof. S. Nicaise, UVHC, France; Prof. J. van Casteren, UA, Belgium; Prof. R. Van Keer, UGent, Belgium

## Scientific Committee:

Prof. H. Amann, Zürich, Switzerland; Prof. W. Arendt, Ulm, Germany; Prof. M. Hieber, Darmstadt, Germany; Prof. S. Nicaise, Valenciennes, France; Prof. R. Nagel, Tübingen, Germany; Prof. F. Neubrander, Louisiana, USA

## Call for communications:

You are invited to submit a proposal for a short lecture of 20 minutes. An abstract of one page maximum will be join to the submission. All communications related to G. Lumer's works will be welcome. Please send your proposal via the website of the conference (http://www.univ-valenciennes.fr/lamav/eveq06) or to S. Nicaise (snicaise@univvalenciennes.fr).

## Serge Nicaise

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Belgian Mathematical Society
http://bms.ulb.ac.be/
European Mathematical Society
http://emis.de/

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

## As a member of the BMS

You will receive five times a year $\boldsymbol{B M S}-\boldsymbol{N C M} \mathbf{N E W S}$, the Newsletter of the $\boldsymbol{B M S}$ 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 $\boldsymbol{B M S}$ 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 2006 (see also the website of the bms at the address http://bms.ulb.ac.be/) ${ }^{1}$

| BMS membership: | EUR 19.00 |
| :--- | :--- |
| BMS + EMS membership: | EUR 39.00 |

## 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 DMVBMS 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 $\boldsymbol{E M S}$.

The activities of the $\boldsymbol{E M S}$ 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 theBMS

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

[^2]
# Membership Application/Renewal Form 

to be sent to
Belgian Mathematical Society
c/o Jan van Casteren
Campus Paine, CP. 218/01
Bled. 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

## Name:

Address:
Postal code: ............................. . City: ................................ . . Country:
E-mail:
Occupation:
Place of Work :
Please tick the appropriate lines:I want to be an ordinary member of the BMS (EUR 19.00).
$\square$ I apply for a BMS reciprocity membership (EUR 17.00); I am a member of the (see page 1 for the list of the reciprocating societies).
$\square$ In addition to my BMS membership, I want to be a member of the EMS (add EUR 20.00).I do not agree that the Newsletter BMS-NCM News be sent to me by e-mail.I do not agree that my affiliation and e-mail address are published.I do not agree that my affiliation and e-mail address are made available on the web site of the BMS.
$\square$ I shall pay my dues, which in total amount to $\ldots, \ldots$ EURO on account number 000-0641030-54 of the BMS (IBAN BE 4200006410 3054; BIC BPOTBEB1)Please charge my credit card to the amount of . . ., . . EUROVISAEUROCARDMasterCard

Card number:


Expiration Date:


## Date:

Cardholder's signature:


[^0]:    ${ }^{1}$ For his painting Number 32 (1950) ( $269 \times 457.5 \mathrm{~cm}$ ) Enamel on canvas, Kunstsammlung NordrheinWestfalen, Düsseldorf see www. abstract-art.com/abstraction/l2_Grnfthrs_fldr/g004_pllck4.html.

[^1]:    ${ }^{2}$ Some pictures of what it should look like can be found at the website www.new-york-art.com/e/Guggen-New.htm.
    ${ }^{3}$ For the paper and the code see www.zi.biologie.uni-muenchen.de/~franke/VirtS1.html.
    ${ }^{4}$ See www.eg-models.de/.

[^2]:    ${ }^{1}$ 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.

