

BELGIAN MATHEMATICAL SOCIETY

Comité National de Mathématique CNM

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NCW Nationaal Comité voor Wiskunde

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

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BMS-NCM NEWS

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Letter from the editor



Welcome to this Spring edition of our Newsletter

Regards, Françoise

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1 News from the BMS & NCM

1.1 Membership fee 2013

Have you paid your membership fee for 2013?

You can easily check your membership status on <http://bms.ulb.ac.be/cgi/querydb.php> Just type your family name in the search field. If you agreed to have your affiliation information available online, you will also see the year for which you last paid your dues.

Please note that our bank account has changed. Here is the new banking information:

BIC: GEBABEBB / IBAN: BE70 0011 7447 8525

Credit Card payments are now done through PayPal (see <http://bms.ulb.ac.be/membership/paypal.php>).

The “Membership renewal form” (see also <http://bms.ulb.ac.be/membership/appl-form.php>) should be filled out only to communicate address changes (and new members of course).

1.2 PhD-Day

The next

PhD-day of the BMS

will take place in Brussels (Academy) on

Monday September 09, 2013.

The WEBSITE for this event is online: <http://bms.ulb.ac.be/phdday/> and **registration is open**. You will find a poster at the end of this Newsletter.

1.3 Bulletin of the BMS - electronic version

We remind you that it is possible to convert your paper subscription to the Bulletin of the BMS into **the electronic version of the Bulletin**. *If you are interested, please contact Philippe Cara by e-mail* (pcara@vub.ac.be with bms@ulb.ac.be in cc) for details.

You will receive a special “subscriber code” with which you can register for the Bulletin of the Belgian Mathematical Society at Project Euclid (<http://projecteuclid.org>).

2 Meetings, Conferences, Lectures

2.1 March-April 2013

Mathématiques et Littérature

Namur, mercredi 20 mars 2013

Dans le cadre du Printemps des sciences et des poètes, deux événements sont organisés à Namur le 20 mars prochain:

- Une après-midi de réflexion sur les relations entre mathématique et littérature, avec les interventions de Philippe Toint, Etienne Lecréoart, Elisa Brune et Caroline De Mulder. Egalement Gérald Purnelle et Jean-Luc De Meyer (sous réserve). Celle-ci se déroulera à la Maison de la Poésie de Namur.
- Une conférence-spectacle intitulée “*Les mathématiques sont la poésie des sciences*”. Celle-ci s’articulera sous la forme de deux conférences de 40 minutes, ponctuées de lectures de textes par un comédien, Jacques Neefs. Les conférenciers sont Cédric Villani (médaille Fields) et Jacques Roubaud (mathématicien et poète). Cette conférence spectacle se déroulera le mercredi soir. Plus de détails sur l’heure et la salle sont disponibles sur le site du printemps des sciences.

<http://www.printempsdessciences.be/>

Les deux événements sont gratuits et ouverts au grand public.

Pour plus d’infos et réservation: mel.godin@gmail.com

Cette journée est le fruit d’une collaboration des Midis de la Poésie de Bruxelles et du Département de Mathématiques de l’Université de Namur. Avec le soutien de la Maison de la Poésie de Namur.

Locally compact groups beyond Lie Theory

Spa, Belgium; March 31 - April 6, 2013

See the poster at the end of this Newsletter

Francqui Chair 2012-2013

UMONS, Belgium

Inaugural lecture: April 18, 2013

Professor **Wolfgang Thomas** holds the Francqui Chair 2012-2013 at the Department of Computer Science, University of Mons (Belgium). He is Full Professor of Computer Science at RWTH Aachen (Germany). His main research interest is the development of automata theory as a framework for modeling, analyzing, verifying and synthesizing systems.

He will give a series of Francqui lectures on

Logic and Automata: Fundamentals and Perspectives

Inaugural lecture: **Thursday April 18, 2013, 17:00**. The lectures series are scheduled on April 26 and May 3.

Attendance is free, but registration is required before April 10, 2013.

Information and registration: see <http://informatique.umons.ac.be/tcs/Francqui/>

Honorary doctorate: Harvey Friedman

Ghent university, Belgium

April 22, 2013

Ghent university gives an institutional honorary doctorate to Harvey Friedman. This event comes with four talks by Friedman (two specialised ones, one about electronic performance and one for a general audience), a small workshop, and a piano concert.

The weblink is: <http://cage.ugent.be/friedman/>

2.2 May 2013***Chaire de la Vallée Poussin 2013***

UCL, Belgium

Professor **Yann Brenier** (Ecole Polytechnique) holds the “de la Vallée Poussin’s chair” this year. He will give a series of lectures (May 13-16, 2013) around

“Convexité cachée en équations aux dérivées partielles non-linéaires”

See the announcement at the end of this Newsletter.

2.3 November 2013***Analysis Meeting*****on the occasion of the 60^e birthday of our colleague and friend*****Gilles Godefroy*****Mons, Belgium, November 4-5, 2013**

Details will soon be available on a website, and also in the next Newsletter. For more information please directly contact

Catherine Finet, UMons (catherine.finet@umons.ac.be)

Françoise Bastin, ULg (F.Bastin@ulg.ac.be)

3 From EMS

3.1 Call for nominations or proposals

Call for nominations or proposals of speakers and scientific events in 2014

The EMS has published the call for nominations or proposals of speakers and scientific events in 2014. Information on the calls and on the submission procedure is given at

<http://www.euro-math-soc.eu/node/3266>

Deadlines:

- For EMS Lecturer: May 31.
- For Joint Mathematical Weekends: August 31.
- For distinguished speakers: December 30.

3.2 Call for submission

EMS Monograph Award: Call for submissions online

On the occasion of its 10th anniversary the EMS Publishing House is pleased to announce the EMS Monograph Award. It is awarded every two years to the author(s) of a monograph in any area of mathematics that is judged by the selection committee to be an outstanding contribution to its field. The prize is endowed with 10.000 Euro, and the winning monograph is published by the EMS Publishing House in the series EMS Tracts in Mathematics.

Deadline for submission of manuscripts: June 30, 2013. Information:

http://www.ems-ph.org/EMS_Monograph_Award.php

3.3 Code of Practice

Dear Colleague,

As you already know, the EMS established an Ethics Committee in 2010. The first task of this Committee was to draft a Code of Practice. This task was accomplished in April 2012. The draft was discussed at the Council meeting in Krakow in July 2012, and the Code was approved by the Executive Committee at the end of October 2012, and it is now in effect.

The approved version can be downloaded at <http://www.euro-math-soc.eu/system/files/COP-approved.pdf>

The Code will be effective in combatting the ethical issues such as plagiarism, lack of proper credit, etc. increasingly appearing in mathematics, only if a sufficient number of mathematicians adhere to the good practices described in the Code, and avoid the bad practices and unethical behaviors described in the Code.

The EMS asks its corporate members and friend societies and organizations for collaboration in speeding knowledge of the Code. You can help in several ways:

- 1) by informing your members about the existence of the Code. For example, by publishing it in your Newsletter (electronic or printed), through direct mail to the membership, etc.;
- 2) by adopting the Code as the official policy of your society;
- 3) if you have a publishing house, by asking it to adhere to the Code;
- 4) if you adopt the Code, we suggest to arrange for a translation into your language(s). Note that the English version available at <http://www.euro-math-soc.eu/system/files/COP-approved.pdf> is the definitive one.

With my best regards,

Marta Sanz-Solé, EMS President

Sources of information:

Ethics Committee official page, http://www.euro-math-soc.eu/comm_ethics.html

Chair of the Committee, Arne Jensen jmatarne@math.aau.dk

4 Miscellaneous

4.1 From VUB

Subject to final administrative approval, the Department of Mathematics of the Vrije Universiteit Brussel has an

open position in Analysis.

See the announcement at the end of this Newsletter.

4.2 From UA

There are going to be two tenure track

positions for academic staff

at the University of Antwerp. The short descriptions are:

- Tenured academic staff in the area of Stochastics - 2013ZAPFDWISEX015
- Tenured academic staff in the area of Analysis with a preference for differential equations - 2013ZAPFDWISSEX016

More details can be found at the web site with information in English:

<http://www.ua.ac.be/main.aspx?c=.DEPTPERSONEELn=104278ct=104278e=286421>

5 History, maths and art, fiction, jokes, quotations ...

pi-trivia number 5

Did you know ...

- ... that today is π -day?
Why? Because in America they write 3/14 for the date of today March 14, and 3.14 is an approximation to the number π .
- ... you really should eat pie today at 3 a clock in the afternoon?

I got my first real π -day pie last year:



As you can see it was a very big one. Good for 18 people. I got it from my boss, who's really getting into π -day. Thanks Martine!

- ... that the 2010 record for computing the furthest digit of π set by a team from Yahoo using 1000 computers has been beaten by Ed Karrels in August 2012?

Starting at the 1,000,000,000,000,000th place, the next 26 hexadecimal digits of π are now known to be:

8353CB3F7F0C9ACCF A9AA215F2

Karrels used a special formula for π discovered by Fabrice Bellard in 1997. This formula is special in the sense that it computes digits of π without having to compute the previous ones, as most algorithms do.

- ... that the well known formula

$$\cos \frac{\pi}{3} = \frac{1}{2}$$

is just one instance of an infinite sequence of nice similar formulas with right hand side $\frac{1}{2}$?

Here are the next ones:

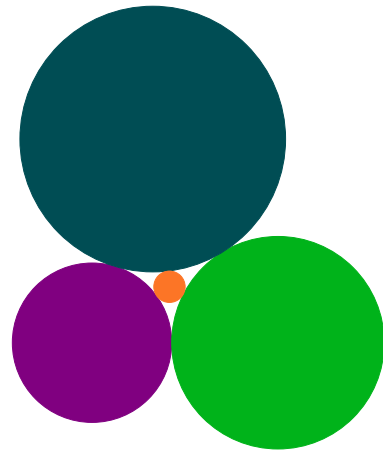
$$\cos \frac{\pi}{5} - \cos \frac{2\pi}{5} = \frac{1}{2}$$

$$\cos \frac{\pi}{7} - \cos \frac{2\pi}{7} + \cos \frac{3\pi}{7} = \frac{1}{2}$$

$$\cos \frac{\pi}{9} - \cos \frac{2\pi}{9} + \cos \frac{3\pi}{9} - \cos \frac{4\pi}{9} = \frac{1}{2}$$

This was proved by Packard and Reitenbach in April 2012.

- ... that if you have a configuration like this one:



with 4 circles touching each other, that the radii of these circles satisfy the following relationship?

$$\frac{1}{(R_1)^2} + \frac{1}{(R_2)^2} + \frac{1}{(R_3)^2} + \frac{1}{(R_4)^2} = \frac{1}{2} \left(\frac{1}{R_1} + \frac{1}{R_2} + \frac{1}{R_3} + \frac{1}{R_4} \right)^2$$

This is known as Descartes' Circle Theorem.

- ... that the movie Life of Pi has recently won 4 Oscars?

The book from which the film was made: Life of Pi, by Yann Martel, won the Booker Prize in 2002. The book recently sold its 3,141,593th copy. And it might not be a coincidence that its main character Pi survives on a lifeboat (with a Bengal tiger) for precisely 227 days ($\frac{22}{7}$ being a well known approximation to π).

This is how the main character, Pi, explains how he got his nickname:

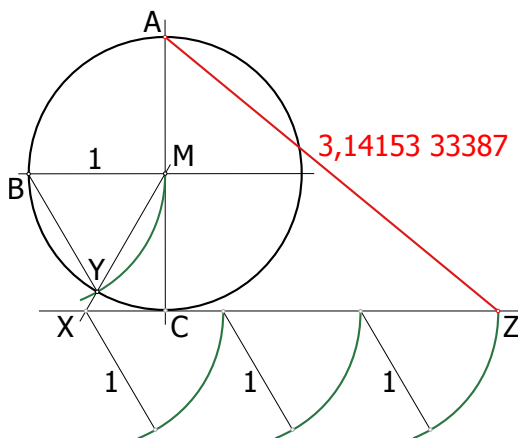
My name is Piscine Molitor Patel, known to all as - I double underlined the first two letters of my given name - Pi Patel. For good measure, I added, $\pi = 3.14$, and I drew a large circle, which I then sliced in two with a diameter, to evoke that basic lesson of geometry.

- ... that on September 12, 2012 five airplanes with dot-matrix skywriting technology wrote thousand digits of π in the sky of the San Francisco Bay Area at a 10,000-foot altitude? The digits of π written in the sky each stood nearly a quarter-mile tall, stretched for a 100-mile loop:



This event was called Pi in the Sky, and it's a π -record: The largest physical expression of π ever created.

- ... that the Polish mathematician Adam Adamandy Kochański published an easy construction of (an approximation to) π in 1685? Here it is:



- ... that there's a lot of material for π -collectors?



(Thank you, Imanol, for the bottle!)

- ... this?

$$\cos(\pi \cos(\ln(\pi + 20))) = -1$$

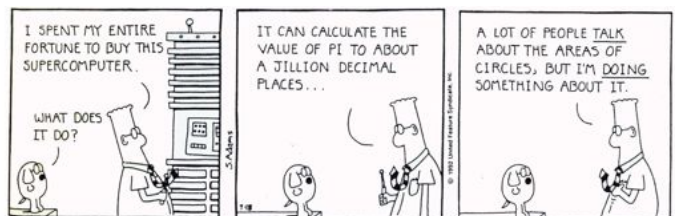
If you didn't, don't try to remember it, because it's not true. It's just an approximation, but a very good one. If you calculate this expression with your pocket calculator, you'll get -1 . The real value is:

$$-0.9999999999999999999999999999717719\dots$$

which is very close to -1 . This is a consequence of the fact that $e^\pi - \pi = 19.999099979\dots$

- ... the following π -limerick, by Nicholas Rose? It tells the sad story of William Shanks (1812-1882), who calculated the first 707 digits of π by hand. It took him 15 years. Later, in 1944, it was discovered that only the first 527 were correct.

Seven hundred seven, Shanks did state,
Digits of π he would calculate
And none could deny
It was a good try
But he erred in five twenty-eight



Review of *Théorème vivant*, by Cedric
VILLANI, Ed. Bernard Grasset 2012, ISBN:
978-2-246-79882-8

Alain Valette

February 24, 2013

Cedric Villani is probably what mathematics has to offer, which comes closer to a rock star; if you don't know him, enter his name on Google Images, to find innumerable pictures illustrating his very personal dressing codes. After he got the Fields Medal at ICM2010, it is fair to say that he became THE ambassador of mathematics, at least in the french-speaking world; actually the French media love him, and I suspect this love is mutual.

In this highly unusual book - which sold more than 35.000 copies in France, Villani proposes the diary of a single mathematical result, hence the title "Théorème vivant" ("Living Theorem", and I understand the book will soon be translated in other languages). The result which Villani discusses was obtained in joint work with his former student Clément Mouhot (*On Landau damping*, Acta Mathematica 207 (2011), 29-201). Villani draws a clear link between getting that 180 page proof (whose first version was completed in spring 2009), and obtaining the Fields Medal at Hyderabad in 2010.

It is not the first time that a great mathematician discusses, in an informal way, the psychology of mathematical invention - there are famous pages by Hadamard, Hardy or Poincaré. But the novelty of this book - and what makes it fascinating - is that a bright young man tells, on a day-by-day basis, the genesis of a result, paying due attention to all aspects of mathematical creation, especially the social ones. It must be emphasized that Villani's goal is not to explain his result, but rather to explain the circumstances of its discovery. The questions he tries to answer are "*What is mathematical research?*" and "*What does an active mathematician do?*". The reader will find some hard mathematics in the book, as Villani copies a few pages of the preprint at various stages of completion; these will be unreadable even to a fellow mathematician, as notations are not defined. Obviously you will skip these pages upon reading, but you will observe that they contribute to creating the atmosphere of the book (a bit like looking at the partition of a symphony, when you're not a musician, gives you a grasp of the complexity of the whole thing).

Many parts of Villani's book will come as no surprise for the active mathematician, but his style is a pleasure to read: he nicely describes how a project evolves, from vague ideas at the beginning, through false starts, with hundreds of phone calls and emails (as it is a collaborative project); he emphasizes the role of talking to colleagues and borrowing inspiration from them, the importance of going to seminars either as a participant or as a speaker, as you may pick up useful ideas or comments from the audience... He also describes the solitary work in front of your sheet of paper, when there's only you and the problem: all the fears, doubts, sometimes despair that you must face, but also these few unforgettable moments when "a voice in the head" tells you the way out, and you are absolutely sure it has to be true even before writing down the proof. We discover this way that Villani is a nighthawk, that tea rather than coffee keeps him going, and that he needs background music to work better: he has quite eclectic musical tastes, ranging from Beethoven and Chopin, through all most famous contemporary french singers (Brassens, Brel, Ferrat, Bécaud, Souchon, Renaud,... with a special mention to Catherine Ribeiro), to - more surprisingly - the italian Fabrizio de André.¹

Now also a mathematician will benefit from the book, as Villani describes features that are not quite accessible to anybody in the profession: like being invited to spend 6 months at IAS Princeton and moving there with family and kids; while at Princeton, getting two concurrent offers, one from Princeton and one from Paris, to serve as the director of the Institut Henri Poincaré (as you know, he opted for the second offer); or getting a 170-pages paper submitted and accepted by *Acta*. We also learn how you get informed that you will receive a Fields Medal (a phone call from the President of IMU). This is actually my only criticism on the book: probably Villani is not aware of it, but his book diffuses, for the mathematician reader, a very elitist view of mathematics, e.g when he writes in Chapter 9 that he's been thinking for years about the Fields Medal, that his prize from the European Math Society in 2008 made him realize that he is still "in the race", and when he goes on discussing his own strong points: "*wide spectrum, especially in my generation: analysis, geometry, physics, PDE's...*". I found it sometimes hard to bear (and actually the book flew once across the living-room!).

Back to mathematics. One of the fascinating facts about the book is that most of the chapters end with mathematical miniatures, which aim to describe, in a non-specialized way, items that have been barely mentioned in the corresponding chapter. These miniatures are clearly recognizable (they are written in italics) and illustrate Villani's remarkable talent for popularization of mathematics, or for describing the sociology of the profession. Here are a few highlights, in order of appearance: Boltzmann's equation, a biography of Landau (the physicist), the

¹de André - sometimes called "the italian Brassens" - certainly deserves to be better known outside of Italy!

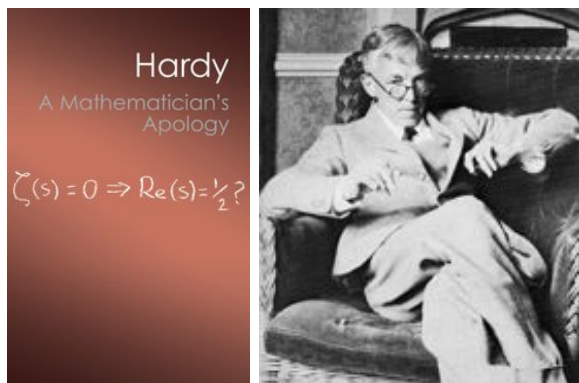
Newton scheme, Kolomogorov-Arnol'd-Moser theory, Fourier analysis, Donald Knuth and TeX, what is the IAS and what it was in the 1950's, the Bourbaki seminar, the Institut Henri Poincaré, what are PDE's, John Nash and regularity of solutions of parabolic equations, the $(3x + 1)$ -problem, the 4-colour theorem, the history of Acta Mathematica, the history of the Fields Medal, the Poincaré conjecture. Some chapters are especially moving, e.g. chapter 11 where Villani reflects on genius and madness, and how close they can be - sometimes.

Villani must be congratulated for this lovely book, that everybody interested in maths will find captivating. A splendid idea for a gift - to give, or be given.



Picture: Villani signing *Théorème vivant*, Metz, Oct. 28, 2012 (photo by A. Valette)

A Mathematician's Apology *G.H. Hardy* Cambridge University Press, Cambridge, 2012, (153 p.), ISBN 978-1-107-6046-36, pbk.



Godfrey Harold Hardy (7 February 1877 – 1 December 1947) was the brilliant English mathematician, and one of the star players in the high days of mathematics as it flourished during the first half of the 20th century. His work with Littlewood and with Ramanujan, whom he lifted from an anonymous Indian to a phenomenon among the leading mathematicians who then flocked together in Cambridge¹.

Hardy worked mostly in Cambridge, but in 1919 he left for Oxford, where he stayed until 1931. His move to Oxford was a consequence of the fact he

disagreed with several of his colleagues in Cambridge about WW I. On the one hand he was a convinced pacifist like Bertrand Russell, but on the other he was an admirer of German society, and he was convinced the England should not have started a war against Germany. His return to Cambridge was because it was indeed the mathematical spearhead of those days. It was around that time that he became acquainted with the young C.P. Snow with whom he shared a passion for cricket. They became good friends ever since. After Cayley, Forsyth, and Hobson, Hardy was the fourth Sadleirian Professor of Pure Mathematics from 1931-1942.

Hardy had a heart attack in 1939, and after WW II, his health deteriorated considerably. He even made a failed attempt to take his own life with an overdose of pills in the Summer of 1947, but he finally died on December 1 later that year at the age of 70.

Hardy said: *One can be horrified or disgusted, but one can't be bored.*² To get him out of his depression in 1940, at the verge of WW II, Snow and other friends urged him to write this *A mathematician's apology*. In this treatise, very accessible for anyone, not being mathematician he asks himself the question: is the work that a man does during his life worth doing, and why does he do it? His answer is a remarkable attempt to explain what it is like to be a mathematician and why and how a mathematician can draw his pleasure in doing mathematics.

He starts by answering the second question: why would anyone choose the job that he does? There are two possibilities. A minority can do something particularly well: ... *perhaps only five, or perhaps ten percent can do something rather well. It is a tiny minority that can do something really well, and the number of man that can do two things well is negligible.* On the other hand one may not be good at anything, and then the answer could be that it just so happened that one is doing what one is doing. The first reason applied to himself: *There is no doubt that I was right to be a mathematician, if the criterion is to be what is commonly called success.* Note the past tense. Hardy is convinced that mathematics, *more than any other art or science is a young man's game.* All great mathematicians achieved their main results at a young age. For example Galois, Abel, Ramanujan died very young. Newton lived longer but he obtained his best results at 24, was creative till 40, but did something else later in life (he became master of the Royal Mint). So



Hardy and Littlewood

¹See also the review of D. Leavitt's *The Indian Clerck* in this Newsletter issue 72, March 2009, which is more an account on Hardy than it is on Ramanujan.

²All italic text are quotations from the booklet.

this essay has some silent veil of sadness over it because Hardy is looking back on his life that he considers to be almost over, at least as far as mathematical creativity is concerned.



GODFREY HAROLD HARDY
 MATHEMATICAE OXONII MOX CANTABRIGIAE
 PROFESSOR DISCIPLINAE APVD VTROSQVE
 EMENDATOR PRAECLARVS IN STVDIIS PROPRIIS PER
 ORBEM TERRARVM INTER PRIMOS OMNIVM
 CONSENSV EMINENS VIR OPINIONVM IMPATIENS
 ALIENARVM SVARVM STRENVVS ET HILARIS
 DEFENSOR HVIVS COLLEGII PER XIX PRIMVM
 DEINDE POST REDITVM PER XVI ANNOS SOCIVS
 AMICIS CARISSIMVS MORTEM OBIIT KAL. DEC.
 A.S. MDCCCXLVII AETATIS SVAE LXX

Godfrey Harold Hardy was Professor of Mathematics at Oxford and then at Cambridge, and was famous for reforming methods of teaching in both places. In his own field he was universally recognised as pre-eminent among the world's best mathematicians. He had little time for the views of others, and he defended his own with energy and humour. He was a Fellow of the College for nineteen years, and for a further sixteen years after his return to Cambridge. He was much loved by his friends. He died on 1st December 1947.

Trinity College Cambridge. Brass located on the north wall of the Ante-Chapel.
 Memorial text by Donald Struan Robertson.

The other question about why it is worthwhile doing mathematics takes the larger part of his discourse. According to Hardy *mathematics is an unprofitable, perfectly harmless and innocent occupation*. This needs some explanation. By ‘unprofitable’ he means ‘useless’ in the sense that there is no direct practical application like for example medicine or physiology is. If it can not be used, then it is not applicable for the welfare of society but it will also be harmless because neither can it be used in the opposite situation like e.g., in war. Again this dictum needs more clarification. With ‘mathematics’ he refers to what he calls *‘real’ mathematics* done by *‘real’ mathematicians*. We would call it ‘pure mathematics’. This is quite different from *the repulsively ugly and intolerably dull* elementary school mathematics. Of course computation is used in daily life and most of the mathematics of the first years at the university can well be applied by engineers and scientists. Pure mathematics however are universal, deep and beautiful. One may call a chess problem mathematics, and in a sense it is, but it is a simple succession of if-then’s, not requiring great creativity on a mathematical level. It is *unimportant* and *not serious*. ‘Real’ mathematics is general and of all times: *Babylonian and Assyrian civilisation have perished; Hammurabi, Sargon, and Nebuchadnezzar are empty names; yet Babylonian mathematics are still interesting*. Pythagoras, Newton and Einstein are real mathematicians. They have influenced science considerably. To make his point more concrete, he gives two generally understandable proofs: Euclid’s proof of the infinity of prime numbers and the proof of Pythagoras on the irrationality of $\sqrt{2}$. Now Hardy can make his point about the aesthetics of a proof. A proof should not be dull and predictable, but there might be some non-straightforward twists, exposing the creativity of the mathematician. The two proofs he gave *have a very high degree of unexpectedness, combined with inevitability and economy*. He also explains what it means to say that a theorem is ‘deep’. For example finding the number of primes smaller than an arbitrary integer N is a deeper result than just saying that there are infinitely many primes. Many deep results can be obtained in number theory, understandable for many, but requiring very complicated proofs. To illustrate the difference between pure and applied mathematics, he gives also the example of geometry. Applied or physical geometry is used to describe our surroundings. There is a model and there are rules that hold. However, these will

change when a massive gravitational object will be brought into the room. The theorems of pure geometry that one has proved in that same room do not change. In this sense the mathematician is in more direct contact with reality than e.g. a physicist. This he said to an audience that consisted mainly of physicists. For example a chair can be a collection of whirling electrons or anything else, depending on the model used to describe the physics, but a mathematical object is exactly what it is, no interpretation possible. There are many possible models for the physical world, yet *317 is a prime not because we think so, or because our minds are shaped in one way or another, but because it is so, because mathematical reality is built that way.*



Different editions of the 'Apology'

The foreword by C.P. Snow is not just a short introduction, but it takes about one third of the booklet. It has been added since the 1967 edition of the *Apology*. Snow gives a very human biography of Hardy. It is not about Hardy's mathematical achievements but rather about his opinions and his character as a human being. He was a rather shy person. It is surprising how few pictures are available for Hardy. Everybody addressed him as Hardy, and only very few called him by his first name. However, after a while, and surrounded by friends, he was most often the center of attention, and he didn't dislike it. He certainly was not a narcissist because did not tolerate mirrors. In an hotel, one of the first things he did was to covered up the mirror with a towel. Hardy was also obsessively heliotropic, and he played this game with God: when he wanted to watch a cricket game, he brought his 'anti-God battery', which consisted in some sweaters, an umbrella and some work because he said that then God would think that he was hoping that it would rain so that he could work, and thus God would counter that and arrange for a sunny afternoon, which is what Hardy was actually looking for: watching the cricket game in the sun. Strange enough he did not like the telephone. Snow once got an urgent call from Hardy who said with an angry voice *I shan't hear a word you say, so when I'm finished I shall immediately put the receiver down. It's important you should come between nine and ten tonight.* Clonk. These and other anecdotes give an idea of what kind of person Hardy was.

Hardy's text is now more than 70 years old, and it is clearly a plea for pure mathematics, but obviously Hardy is also justifying his own life. Some of his viewpoints were and still are controversial. Some of his arguments may no longer hold. E.g., his beloved number theory became an important element in public key encryption, although he may have considered that as dull and applied, and not of the pure and creative sort. Yet his ideas are so clearly formulated, that it is still highly recommended for mathematicians as well as those who wish to understand what a mathematician is like. So we are very lucky that the booklet is still available in print.

Note that the apology by Hardy is also publicly available courtesy of the University of Alberta Mathematical Science Society. The foreword by Snow is not. See www.math.ualberta.ca/mss/misc/A Mathematician's Apology.pdf.

Adhemar Bultheel

CHAIRE DE LA VALLÉE POUSSIN | 2013 |

Yann Brenier

Directeur de recherches CNRS, École Polytechnique, France

Convexité cachée en équations aux dérivées partielles non-linéaires

- ⊗ **Lundi 13 mai à 16h15**
Leçon inaugurale
- ⊗ **Mardi 14 mai à 11h**
L'équation de Monge-Ampère et le problème de transport optimal de Monge et Kantorovich
- ⊗ **Mardi 14 mai à 14h**
Transport optimal conservant la mesure et équations d'Euler des fluides incompressibles
- ⊗ **Mercredi 15 mai à 14h**
De l'équation de Monge-Ampère à l'électromagnétisme non-linéaire de Born et Infeld
- ⊗ **Jeudi 16 mai à 11h**
Diffusion conservant la topologie de champs de vecteur à divergence nulle et relaxation magnétique des équations d'Euler.

*Toutes les leçons seront données
en l'auditoire Charles de la Vallée Poussin (CYCL 01)
du bâtiment Marc de Hemptinne,
chemin du Cyclotron, 2 à Louvain-la-Neuve*

Locally compact groups beyond Lie theory

U. Bader
Y. Barnea
E. Breuillard
Y. de Cornulier
D. Dreesen
M. Ershov
T. Gelander
Y. Glasner
B. Green
N. Monod
S. Mozes
N. Nikolov
A. Ould Houcine
A. Pillay
C. Reid
D. Segal
T. Steger
R. Tessera
G. Willis
J. Wilson

Organizing committee

P.-E. Caprace
M. Carotte
T. De Medts
C. Michaux
A. Valette



March 31 - April 6, 2013 • Spa • Belgium
<http://java.ugent.be/lcg>



Vrije Universiteit Brussel

Lecturer in Analysis (tenure track)

Subject to final administrative approval, the Department of Mathematics of the Vrije Universiteit Brussel has an open position in Analysis.

Applications are invited from candidates with proven research ability in this area. We are especially interested in applicants with research interests in **Operator algebras** or **Differential geometry**.

You should have an emerging track-record of research at a level of international excellence, including publications in leading international journals in your area, as well as a completed PhD in mathematics. You will maintain an active program of research - possibly in cooperation with one of the existing research groups of the department in topology, algebra and probability - and will contribute to the general work of the department, including the teaching of a range of mathematics courses in the bachelor and master program of the Vrije Universiteit Brussel.

The initial appointment is tenure track for five years and comes with a reduced teaching load to allow more time for research activities. In the fifth year of the appointment you will be evaluated and if this evaluation is positive the position will be converted into a tenured faculty position at the level of Main Lecturer. Teaching languages are English and Dutch. If you do not speak Dutch you are expected to learn the language within the period of your initial five-year appointment. The required proficiency level will depend on the duties assigned to you. Dutch language courses are offered on the campus of the Vrije Universiteit Brussel.

Starting date will be October 1, 2013 or possibly somewhat later after mutual agreement.

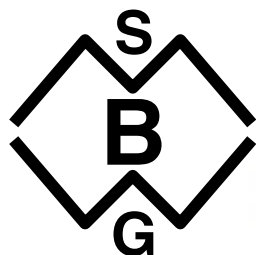
For further information please contact the chairman of the hiring committee, Professor Stefaan Caenepeel (scaenepe@vub.ac.be)

Applications including an updated CV and academic portfolio, research and teaching statements have to be done electronically via

<http://vub.talentfinder.be/en/vacatures/g/academisch-personeel/index.aspx>

where the position will be posted during the month of April 2013.

THE BELGIAN MATHEMATICAL SOCIETY



Comité National de Mathématique CNM

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NCW Nationaal Comite voor Wiskunde

Young mathematicians, TELL US WHAT YOU ARE DOING !

The Belgian Mathematical Society invites you to its fourth

PhD-Day

on **Monday, 9 September 2013**

at the **The Royal Flemish Academy of Belgium
for Science and Arts**

(Paleis der Academiën – Hertogsstraat 1 – 1000 Brussel)

On this day we give the opportunity to all Belgian PhD students to present their research and to get to know their colleagues from all over the country.

PROGRAMME OF THE DAY

10h00 Welcome from the president of the Society

10h15 Godeaux Lecture

11h15 Coffee

11h45 Poster presentations

12h45 Lunch (free for BMS members)

14h15 Oral presentations

16h35 Poster presentations

17h25 Drink and award for best poster

For more information and registration (deadline is July 1):

<http://bms.ulb.ac.be/phdday>