# Sonja Cox

Korteweg-de Vries Institute for Mathematics University of Amsterdam s.g.cox@uva.nl Herman te Riele Centrum Wiskunde & Informatica Amsterdam herman.te.riele@cwi.nl

## Event BeNeLux Mathematical Congress (BeNeLuxMC 2016)

# **Bringing together the BeNeLux mathematical community**

The BeNeLux Mathematical Congress 2016 took place in Amsterdam on March 22 and 23. It incorporated the yearly *Nederlands Mathematisch Congres* organized under auspices of the KWG. Sonja Cox and Herman te Riele of the Local organisation committee look back on this two-day congress.

This was not the first time a joint congress was organized: joint editions were also held in 1996 (Antwerpen), 2004 (Tilburg), 2005 (Gent) and 2008 (5ECM in Amsterdam). The motivation to host a congress together with Belgium and Luxembourg this year was to promote contacts within the BeNeLux mathematical community and to increase the number of participants — which was successful to some degree: there were many great speakers from Belgium and Luxembourg, but relatively few participants (31 of a total of 290).

The spirits at the conference were damped by the terrorist attacks in Brussels on March 22nd (this also caused some participants to cancel their participation). Nevertheless, it contained many highlights, such as the Beeger lecture by James Maynard, the first De Bruijn Prize awarded to Marius Crainic, the PhD Prize awarded to Geoffrey Janssens, and the public lectures by lonica Smeets and Marcus du Sautoy in the grand hall of the Royal Tropical Institute. A more detailed description of various elements of the conference may be found below.

Altogether, the conference successfully brought together the BeNeLux mathematical community and offered an interesting and varied program. Therefore, we propose you all mark April 11 and 12, 2017, in your schedules, which is when the 53rd *Nederlands Mathematisch Congress* is to be held in Utrecht.

#### The Beeger lecture

The Beeger lecture is a biennial event established in 1992 by the Mathematical Centre (now CWI) to promote research and exchange of ideas in the field of algorithmic and computational number theory. The Beeger committee of 2016 (consisting of Jos Baeten, Frits Beukers, Jan Draisma, Serge Fehr and Hendrik Lenstra) had invited James Maynard (University of Oxford) to present the thirteenth Beeger lecture, which was also the opening talk of the congress. This was a great success; James gave a talk on small gaps between primes that was truly interesting to mathematicians in all fields.

#### Plenary and semi-plenary talks

There were two plenary talks apart from the Beeger talk. On Wednesday morning, Ellen Baake (University of Bielefeld) spoke about ancestral selection graphs, and the closing lecture on Wednesday afternoon was given by Stefaan Vaes (KU Leuven) and concerned the classification of von Neumann algebras. In addition, there were four semi-plenary talks. On Tuesday morning,



James Maynard

Ivan Nourdin (University of Luxembourg) spoke on the Gaussian Product Conjecture and Mark Peletier (TU Eindhoven) gave a talk entitled 'From dislocations to plasticity: A mathematical upscaling challenge'. On Wednesday morning, Johannes Nicaise (Imperial College Londen) went 'From elementary number theory to string theory and back again', after which Marius Crainic spoke about Conn's linearization theorem, in honor of being awarded the first De Bruijn Prize.

#### De Bruijn Prize

The N.G. de Bruijn Prize was established in 2015 by KWG and is to be awarded in the years  $y_n = 2016 + 2n$ ,  $n \in \mathbb{N}_0$ , for the best publication in the years  $y_n - 3$  and  $y_n - 2$  by a mathematician of Dutch origin or one working in the Netherlands. For the first award of the prize the award period 2013-2014 was extended with the two vears 2011–2012. The prize is named after the Dutch mathematician N.G. de Bruijn (1918-2012) and is financed by Elsevier. Henk Broer (chair), Rob Tijdeman and Michel Dekking formed the jury for the first edition of the prize, which was awarded to Marius Crainic. De Bruijn's son and daughter attended the prize ceremony and presented the medal to the winner. The laudation by Henk Broer can be found elsewhere in this issue.

#### Public lectures and evening program

On Tuesday evening, Ionica Smeets (University of Leiden) and Marcus du Sautov (University of Oxford) gave public lectures in the Royal Tropical Institute. These lectures were intended for all who have some interest in mathematics, and indeed attracted many mathematics students and even a couple of non-mathematicians. An audience of approximately 250 persons listened to Ionica Smeets explaining how (not) to manipulate data, and to Marcus du Sautoy giving examples of mathematics in the music, art and literature. The evening was concluded with a conference dinner in the splendid marble hall of the Royal Tropical Institute.

#### **PhD Prize**

Following the NMC tradition, a prize was presented to the PhD candidate who gave the best presentation of his/her research at the conference. The prize was financed by Peter and Ghica van Emde Boas of



The six candidates for the PhD Prize: Mihaela Mitici, Johan Commelin, Thomas Kleyntssens, Valentijn Karemaker, Emil Horobet, Geoffrey Janssens

Bronstee.com. Based on abstracts submitted in advance, the jury chose six candidates to present their work: Johan Commelin (Radboud University, Nijmegen), Geoffrey Janssens (Vrije Universiteit Brussel), Thomas Kleyntssens (Université de Liège), Valentijn Karemaker (Utrecht University), Emil Horobet (Eindhoven University of Technology) and Mihaela Mitici (University of Twente). The prize was won by Geoffrey Janssens, who spoke about identities of algebras and groups and their asymptotic behaviour. The jury consisted of Jan van Mill (chair), Arjeh Cohen, Jason Frank, Yvik Swan and Anton Thalmaier.

#### **Parallel sessions**

On Tuesday afternoon, four thematically grouped parallel sessions were held, each with three speakers. One session was devoted to mathematics for high-school teachers (see below), the other three concerned discrete mathematics, stochastics, and geometry. The themes of the Wednesday afternoon sessions were algebra, analysis and networks. The sessions corresponded roughly to the Dutch research clusters, with an additional session for networks.

## **Teacher's session**

Derk Pik (UvA) and Willem Hoekstra (VU) organized a special session for high school teachers in mathematics. Three speakers were invited to share their ideas on the 'profielwerkstuk' in mathematics: Saskia van der Jagt (VU Amsterdam and Coornhert Gymnasium, Gouda), Sven Aerts (4e Gymnasium, Amsterdam) and Marijke Mahieu (Stedelijk Gymnasium, Leiden). In addition, the high-school students Romy Rouwendaal and Fleur Piers (Kennemer College, Beverwijk), Rainier van Es (Zwijsen College, Veghel) and Eytan Cortissos (JSG Maimonides, Amsterdam) were invited to present their 'profielwerkstuk', thereby competing for the first Pythagoras Prize for the best 'profielwerkstuk' in mathematics. Eytan Cortissos was elected the winner of the prize.

### Honorary members KWG

At the annual general member assembly of the KWG held on Tuesday, March 22nd, two new honorary members of the KWG were appointed: Rien Kaashoek and Henk van der Vorst. Interviews with both honorary members can be found elsewhere in this issue.

#### Organisation

*Scientific committee:* Lenny Taelman (chair, University of Amsterdam), Jan Bouwe van den Berg (VU Amsterdam), Karel Dekimpe (KU Leuven), Bas Edixhoven (Leiden University), Frank den Hollander (Leiden University), Erik Koelink (Radboud University), Martin Schlichenmaier (University of Luxembourg), Yvik Swan (Université Liège), Gabor Wiese (University of Luxembourg).

Local organisation: André Ran (chair, VU Amsterdam), Sonja Cox (University of Amsterdam), Herman te Riele (CWI).