
MEDEDELINGEN VAN HET KONINKLIJK WISKUNDIG GENOOTSCHAP, 2017 nr. 20

1 december (elektronische aflevering)

De eerstvolgende aflevering verschijnt omstreeks 15 december 2017.

Kopij kan worden gestuurd naar medwg@cw.nl; agenda-items kunnen ook worden aangeboden via de website wiskundepersdienst.nl

Mededeling van het Bestuur

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Beëindiging Elektronische Mededelingen van het KWG per 1-1-2018

Per 1 januari 2018 zullen de Elektronische Mededelingen van het KWG worden stopgezet. De reden hiervoor is dat het lastig is om per e-mail agenda en nieuwsberichten te verspreiden zonder klachten te krijgen over leesbaarheid of aantal klikken die nodig zijn om de Mededelingen op het scherm zichtbaar te maken. De huidige opzet is verouderd en kost de opstellers veel tijd. Verder verschrompelt het aanbod en er bestaat enige twijfel of alle onderdelen van de Mededelingen gelezen worden.

Voor de agenda is de Wiskunde Persdienst beschikbaar en nieuwsberichten staan o.a. op de WPD en/of de KWG website.

De **Mededelingen van het Bestuur** die regelmatig aan het begin van de Elektronische Mededelingen worden opgenomen blijven bestaan maar in een andere vorm: ze worden vanaf 1-1-2018 als tekstbericht aan de KWG-leden, van wie we een correct e-mail adres hebben, toegezonden met als Subject: "Mededeling(en) van het KWG-bestuur". Dit zijn bv. aankondigingen van het NMC, van Algemene Ledenvergaderingen, van Statutenwijzigingen en van andere voor het Genootschap belangrijke zaken.

Mocht u toch prijs stellen op regelmatige toezending van agenda en nieuwsberichten dan verzoeken we u mee te denken over een nieuwe opzet.

Voor evt. commentaar/suggesties, mail naar wiskgenoot

1. Agenda

2. Varia

3. Vacatures

1. Agenda

Van de met * aangeduide activiteiten vindt men bijzonderheden in de rubriek Colleges, voordrachten en cursussen.

6-12 UvA: General Mathematics Colloquium
Speaker: Botond Szabó (UL)
An asymptotic analysis of non-parametric divide-and-conquer methods
Time/location: 16 hr, room F3.20, KdVI meeting room, Science Park 107

13-1 2018 Utrecht Academieggebouw: Wintersymposium 2018 -
WiskundeTaal
Meer informatie en registratie via de website.

22/24-1 2018 Lunteren: 17th Winterschool on Mathematics
Special topics: Extreme Risks, and Algorithmic and high-

frequency trading, Two mini courses, four short lectures
complete the programme
[website](#)

29-1/2-2 2018 TUE: 135th European Study Group Mathematics with Industry
2018 (SWI2018). Registration through the SWI 2018 website is
compulsory due to capacity constraints.
[e-mail](#), [website](#)

3/4-4 2018 Veldhoven: 54-th Dutch Mathematical Congress (NMC 2018)
The program includes plenary lectures by Adriana Garroni, Yi
Ma, Jean-François Le Gall, William Slofstra, Bruno Stoufflet,
and Fernando Rodriguez Villegas (Beeger lecture).
Early bird [registration](#) until December 27th, 2017. [Website](#)

9-5 2018 TUD: Jan Aarts 80
Een middag met lezingen ter gelegenheid van de 80ste
verjaardag van Jan Aarts
Meer informatie volgt.

23/24-7 2018 Lisbon, Portugal: The 11th European Conference on
Mathematical and Theoretical Biology (ECMTB 2018)
If you wish to benefit from the early bird lower fees,
please register before April 15, 2018.
For important dates, and registrations see the [Conference
webpage](#)

23/27-7 2018 Shanghai, China: The 29th International Workshop on Operator
Theory and Applications (IWOTA 2018),
website is still under construction
[Email](#)

2. Varia

Call for submissions for the KWG PhD prize for the best presentation of PhD research in mathematics

Every year, the Dutch Royal Mathematical Society (KWG) invites several PhD
candidates to present their research at the Dutch Mathematical Congress
(NMC). A jury of mathematicians from various fields chooses a winner who
receives, besides the prestige attached to winning, a floating trophy and a
monetary reward of 1000 euro.

This year the PhD prize competition is open to PhD candidates in mathematics
from all universities in the Netherlands, and the 2018 KWG Dutch Mathemati-
cal Congress will be held on April 3rd and 4th at the Koningshof in
Veldhoven (near Eindhoven). The jury will be chaired by Prof. dr. Bas
Edixhoven (UL).

The prize money is made available by Bronstee.com.

In order to enter the competition please send an extended abstract (one page
approximately, maximum of two pages) and short CV (maximum one page) to the
following email address kwg.phd.prize@gmail.com. Please also ask your daily
supervisor to send a concise letter of recommendation to the same address.

The deadline for proposals is **Sunday, January 28th 2018**.

3. Vacatures

NLR Amsterdam

There is a vacancy at NLR for a

PhD position 'Laminar wing design'.

See the [website](#) or contact Kees Wijnberg, department manager Flight physics and loads (088 5113533).

Johan C. Kok

Flight physics and loads department

Netherlands Aerospace Centre NLR

Anthony Fokkerweg 2, 1059 CM Amsterdam, the Netherlands

Warwick, UK

Applications are invited for

permanent Assistant and Associate Professor Positions

as well as

three year Warwick Zeeman Lectureships

at the Department of Mathematics of the University of Warwick.

See the websites:

<http://www.jobs.ac.uk/job/BFR766/associate-professor-72260-117/>,

<http://www.jobs.ac.uk/job/BFR396/assistant-professor-72260-117/>,

<http://www.jobs.ac.uk/job/BFR395/warwick-zeeman-lecturer-81176-117/>.

Deadline for applications: [12 December 2017](#)

For information about number theory at Warwick see the website:

http://www2.warwick.ac.uk/fac/sci/math/research/interests/number_theory/.

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Professor Samir Siksek

Mathematics Institute

University of Warwick

<http://www.warwick.ac.uk/staff/S.Siksek/>

INRIA (Paris, France), and Philips (Eindhoven)

PhD position, jointly in INRIA (Paris) and Philips (Eindhoven). The division of time is 50-50 between Paris and Eindhoven, while the precise schedule is still to be determined.

The supervisors will be Jean-David Benamou in Paris, one of the leaders in the area of Optimal Transport, and Wilbert IJzerman in Eindhoven, a group leader at Philips and part-time professor at TU Eindhoven. Together with Jan ten Thijs Boonkamp (maths, TUE) and others in other departments Wilbert is building a group of people in Eindhoven working on mathematical problems that arise in lighting.

Scientific context

FreeForm Optics [FFO] is the branch of Optics concerned with the design of non-conventional asymmetric refractive and reflective optical elements [OE] or systems of such elements. This research is important to improve the energy efficiency of lighting devices and reduce light pollution (for example of street lighting). A classic application of FFO (amongst many) is the irradiance tailoring problem : design an optical system transferring a given light source emittance (e.g a car headlight bulb) to a prescribed irregular target irradiance (e.g. the angular far field distribution of projected light). The FFO design at the industrial level has remained so far largely heuristic.

On the academic side, two classes (collimated or point source illuminance) of idealized tailoring irradiance problems can be exactly modelled and solved using Optimal Transport [OT] theory. OT defines a unique map or a coupling between prescribed distributions representing given illuminance and irradiance. This map can then be used to construct the OE shape. Recent advances in OT numerical solvers allow to tackle systems described by millions of degrees of freedom. This offers a sound mathematical and numerical background to FFO.

Challenges

1) OT modeling cannot be directly used for systems of OE involving multiple reflectors/lenses. 2)

The collimated or point source illuminance hypothesis is not compatible with the use of LED light source technology and the current miniaturization trend. The size of the light source is too large compared to be considered as a far field point source for the reflector part of the OE. The OT theory and solvers again cannot directly be used.

Requirements:

- Master degree (or equivalent) in Applied Mathematics or Optical Engineering
- Excellent Programming skills.
- Optional : Familiarity with convex analysis, calculus of variation and nonlinear optimization techniques.
- Strong interest in interdisciplinary scientific work.
- Ability to work independently and as part of a team.
- Strong motivation to pursue a PhD degree.
- Excellent command of English, together with good academic writing and presentation skills.

Applications should be sent to: [Jean-David.Benamou](#), [Wilbert.Ijzerman](#)

Eligibility: The candidate recruited in the ROMSOC project must be in the first four years from the date when the candidate obtained the degree entitling him or her to embark on a doctorate (e.g. master degree). No doctoral degree has been awarded during these four years. The candidate must not have resided or carried out her/his main activity (work, studies, etc.) in France for more than 12 months in the 3 years immediately prior to the recruitment date. Compulsory national service, short stays such as holidays, and time spent as part of a procedure for obtaining refugee status under the Geneva Convention are not taken into account. The candidate must work exclusively for the project during the employment contract. The candidate must fulfill the conditions to be admitted in the PhD programme indicated in the job vacancy. Tuition fees will be covered by the fellowship. These conditions must be fulfilled at the starting date of the contract.

The starting date for each position is tentative.

For more information please contact [Wilbert Ijzerman](#) .

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