

## Activities in History of Mathematics in Utrecht in the year 2010

Contents:

- Personnel
- International Service
- Publications
- Lectures
- Media
- Visits
- Visitors from abroad
- Organisation of conferences
- Honours and Awards
- Courses, Bachelor Theses and Master Theses related to the History of Mathematics
- Courses (not history-related)

### Personnel

Steven Wepster (SW): from January 1, 2010 - Dec. 31, 2010: 0,7 “Universitair Docent”, Department of Mathematics, UU.

Liesbeth de Wreede (LW): Jan. 1, 2009 - Dec. 31, 2010: Official (un-salaried) guest of the Mathematics Department (History of Mathematics Research Group), UU, 0.0 fte.

Jantien Dopper (JDo): Jan. 1, 2010 - Dec. 31, 2010: Ph.D. student (AIO) at the Department of Mathematics, UU.

Jan P. Hogendijk (JH), Jan. 1, 2009 - , Professor of History of Mathematics in Utrecht University (0,5 full professor, 0,5 associate professor).

Mr. Goossen Karssenbergh, mathematics teacher in Den Burg (Texel), is working on a “teacher in research” project in Islamic tilings, funded by NWO, from January 1 - December 31, 2010. The project is jointly supervised by Prof. Dr. Jan van Maanen (Freudenthal Institute for Mathematics and Science Education) and JH.

Mr. Henk Hietbrink, mathematics teacher in Nieuwegein, formerly working on a “teacher in research” project on Frans van Schooten, is continuing his work as an official (un-salaried) guest of the Mathematics Department (History of Mathematics Research Group), UU, 0.0 fte.

Mr. Wilfred de Graaf (WG) completed his M.Sc. in physics, and since Nov. 1, 2010 he is Ph.D. student in mathematics, working with Prof. Odo Diekmann.

Although his Ph.D. project is not in the history of mathematics, Mr. de Graaf often participates in projects relating to Islamic mathematics and Iran.

Mr. Hüseyin Şen (HS) is a master student in History of Islamic Science, working with JH.

### **(International) Service**

JH is executive Member, Academie Internationale d'Histoire des Sciences.

JH is vice-president of the Commission for Science and Technology in Islamic Societies, and from Feb. 26 onwards president of this Commission, after the untimely death of the president Dr. Merce Comes (Barcelona). JH retired as Treasurer of the International Commission of the History of Mathematics.

JH is a member of the editorial board of the following journals in the history of science:

- Ganita-Bharati (Delhi, ISSN 0970-0307),
- Istoriko-Matematicheski Issledovaniya (Moscow, ISBN 5-8037-0291-9),
- Suhayl (Barcelona, ISSN 1576-9372),
- Zeitschrift für Geschichte der arabisch-islamischen Wissenschaften (Frankfurt, ISSN 0179-4639),
- Historia Mathematica (Amsterdam-San Diego, ISSN 0315-0860),
- Ta'rikh-e Elm (Tehran, ISSN 1735-0573),
- Journal for the History of Arabic Science (Aleppo, ISSN 0379-2927),
- Early Science and Medicine (Leiden, ISSN 1383-7427).

JH was elected member of the Board of Trustees (Stiftungsrat) of the Institute for History of Arabic-Islamic Science on July 13, 2010.

### **Publications**

JDo, Duytsche Mathematicque, *Euclides* 85 no. 6 (mei 2010), 230-233.

Henk Hietbrink, Meetkunde met Frans van Schooten Junior (1615-1660), *Euclides* 85 no. 7 (juli 2010), 279-282.

JH, review of Horst Kranz and Walter Oberschelp, *Mechanisches memorieren und chiffrieren um 1430*, Stuttgart, Frans Steiner Verlag, 2009, in *Mathematical Reviews* 2010f:01006

JH, review of: Arianna Borelli, *Aspects of the Astrolabe: Architectonica Ratio in Tenth- and Eleventh-Century Europe*. Stuttgart: Franz Steiner Verlag, 2008, *Sudhoffs Archiv* 57, in *Isis* 100, no. 4 (2009), pp. 900-901.

JH, Lijfrentes in de zeventiende en achttiende eeuw, *Nieuw Archief voor Wiskunde*, serie 5, vol. 11, nr. 2, juni 2010, 138-144, ISSN 0028-9825.

JH, The scholar and the fencing master: the exchanges between Joseph Justus Scaliger and Ludolph van Ceulen on the circle quadrature, *Historia Mathematica* 37 (2010), 345-375.

JH, Van Ceulen tegen de wiskunde van Scaliger, *Euclides* 86 no. 3 (december 2010), 108-110. ISSN 0165-0394

SW, Ludolph van Ceulen (1540-1610): Meester der Rekenmeesters, *Pythagoras* 49 no. 3 (januari 2010), 12-15. ISSN 0033-4766,

SW, Hoe Van Ceulen pi insloot, *Pythagoras* 49 no. 3 (januari 2010), 26-28.

SW, Ludolph van Ceulen (1540-1610): In de ban van de cirkel. *Euclides* 85 no. 3 (dec. 2009), 98-101.

SW, Boekbespreking: J.H. Derks, *Cursus door zes eeuwen wiskunde. Euclides* 85 no. 3 (dec. 2009), p. 133.

SW, Van Ceulen in Hollandse Kringen Nieuw Archief voor Wiskunde, serie 5, vol.11, nr 1 (march 2010), pp. 63-69, ISSN 0028-9825.

LW, Leermeester en leerling in gesprek, *Euclides* 86 no. 1, 41-44 (sept 2010).

LW, A dialogue on the use of arithmetic in geometry: Van Ceulen's and Snellius's *Fundamenta Arithmetica et Geometria*, *Historia Mathematica* 37 (2010), 376-402.

Maartje van der Veen, Koen Jeene, Bart Post, Muqarnas, *De Vakidoot* 2009-2010, no. 2, pp. 4-7, available online at

<http://www.a-eskwadraat.nl/Vereniging/Commissies/vakid/vakid0910-2.pdf> [introduction of their 2009 presentation on Muqarnas (an architectural structure in Islamic Science) in the course Concrete Geometry 2009.]

Marianne de Nijs, Margot Reinierse, Ludolph van Ceulen in de klas, *Euclides* 85 no. 6 (2010), pp. 244-247 [based on their M.Sc. thesis in history of mathematics]

Marianne de Nijs, Steven Wepster, *Meester Ludolphs Koordenvierhoek*, Utrecht, Epsilon-Press, 2010, Zebra-reeks deel 31, ISBN 978-90-5041-119-6.

Lydia Brenner, Guusje Peerboom, Het belang van handelsrekenen in het onderwijs Nieuwe Wiskrant 30 no. 2 (december 2010), ADDPAGES [based on their essay in the bachelor course History of Mathematics WISB281, see below]

## Lectures

- February 5, SW: 45-minutes lecture Cirkelkwadraturen recht en krom [circle quadratures straight and crooked], Nationale Wiskundedagen, Noordwijkerhout.
- February 6: The following three workshops were coordinated by SW (Nationale Wiskundedagen, Noordwijkerhout):  
JDo with Wiggert Loonstra, workshop "Ruzie en rekenvaardigheden onder rekenmeesters: van Ceulen, Petri en Goudaen in conflict." [quarrels and computational abilities among arithmetic teachers: Van Ceulen, Petri and Goudaen in conflict];  
LW, workshop "Van Ceulen en Snellius over paren van een lijnsegment en een getal: een dialoog" [Van Ceulen and Snellius on pairing a line segment

and a number: a dialogue];

Marjanne de Nijs en Margot Rijnerse, Lesmateriaal van toen bewerkt voor leerlingen van nu.

- March 23, SW: 18th century lunar tables: theory meets application. Séminaire Tables et Astronomie, dans le cadre du projet l'ANR Histoire des Tables Numériques (organisation: Dominique Tournès), Université de Paris-Diderot, Paris. <http://www.rehseis.cnrs.fr/spip.php?rubrique148>
- March 23, JH: The influence of Islamic science on the development of mathematics in medieval Europe. Mathematics Colloquium, KFUPM, Dhahran, 50 participants.
- March 30, JH: The early development of mathematical methods for finding the qibla in Islamic civilization. Mathematics Colloquium, KFUPM, Dhahran, 50 participants.
- March 30, JH: Public lecture: New discoveries about contributions by medieval Islamic scientists, Al-Khobar, SciTech, 20:15-21:15. 50 participants.
- March 31, Wilfred de Graaf, workshop: The Zawraqi Astrolabe. KFUPM, Dhahran, Department of Mathematics. 25 participants.
- February, March, April: A series of about 12 lessons on patterns in Islamic mosaics ('Patronen in Islamitische Mozaïeken') written by Goossen Karsenberg was given to a group of 12 students (vwo 4, 15-16 years) at the Cosmic College Rotterdam by Marjanne de Nijs, and to a group of 18 students (vwo 5, 16-17 years) at the Openbare Scholengemeenschap De Hogeberg Den Burg (Texel) by Peter Teubel and Goossen Karsenberg.
- April 15: the students Maartje van Veen, Bart Post, and Saskia van der Hoeven conducted a workshop on Muqarnas [Islamic architectural structures], which was conceived in the course Concrete Geometry 2009 taught by JH, in class vwo 5 (18 students, age 16-17 years) at the Openbare Scholengemeenschap De Hogeberg, Den Burg, Texel. This event was organized by our 'teacher in research' Goossen Karsenberg.
- April 23, SW, Ludolph van Ceulen, veelhoeken en veeltermen (Ludolph van Ceulen, polygons and polynomials), in: Minisymposium History of Mathematics, Dutch Mathematics Congress, Utrecht University, Utrecht.
- April 29, Prof. Dr. Michael Nauenberg, University of California, Santa Cruz, Historical perspective on the early development and application of the calculus, lecture in the weekly mathematics colloquium of the Department of Mathematics, University of Utrecht.
- May 7, JH. Kible Tayininde Kullanılan Üç Alet: İslam Astronomisi mi Avrypa Haritacılığı mı? Three instruments for finding the qibla: Islamic

Astronomy or European Cartography? Istanbul, IRCICA, Islamic Astronomy Panel: Astronomers in Islam and their Contribution to World History of Science.

- May 16, Goossen Karssenbergh, Lecture on Teaching and Research Project on Islamic Tilings, Isfahan, Isfahan Mathematics House
- May 18, SW, Analytische meetkunde in het werk van Johan de Witt, docentenbijeenkomst wiskunde-D, regionaal steunpunt Eindhoven.
- May 20, Goossen Karssenbergh, Tiling workshops with kites and darts, Isfahan, Isfahan Mathematics House, (on possible relations between medieval Islamic and modern tilings)
- May 22, Goossen Karssenbergh, Tiling workshops with kites and darts, Yazd, Yazd Mathematics House (see May 20)
- May 20, JH, The scholar and the fencing master: the exchanges between Joseph Justus Scaliger and Ludolph van Ceulen on the circle quadrature. Meeting: Context, Emergence and issues on Cartesian Geometry in Honour of Henk Bos's 70th Birthday, Paris, École Normale Supérieure
- May 20, LW, A dialogue on the use of arithmetic in geometry: Van Ceulen's and Snellius's *Fundamenta Arithmetica et Geometria*. Meeting: Context, Emergence and issues on Cartesian Geometry in Honour of Henk Bos's 70th Birthday, Paris, École Normale Supérieure.
- May 29, JH, lecture (partly historical), and astrolabe workshop (assisted by HS) in the Ouderdag [for parents of first- and second-year mathematics and physics students], organized by the student association A-Eskwadraat, Utrecht University
- June 1, Meike Rouwenhorst, Vierhonderd jaar wiskunde tot nut ende vermaak (on Ludolph van Ceulen and Laurens Praalder), M.Sc. presentation, Department of Mathematics, University of Utrecht.
- June 16, HS, workshop “the astrolabe”, to a group of 15 students in cultural studies of Bremen University, supervised by Prof. Dr. Detlev Quinter, Istanbul, Museum of the History of Science and Technology in Islam.
- July 21, JH, “History of Islamic mathematics: achievements and prospects”, in Barcelona, Universitat Autònoma, World Conference for Middle Eastern Studies.
- August 27, JH, introductory presentation: Astrology and its practitioners and partners from the ancient to the medieval world, Amsterdam, ICHS 2010 (see Organisation of Conferences below)
- October 21 and 25, WF, workshop “the astrolabe of Abū Ḥāmid al-Khujandī (10th century)”. Khujand State University, Khujand, Tajikistan. 100 participants on October 21, 50 participants on October 25.

- October 31, WF, “The influence of Islamic science on the development of mathematics in Western Europe (ca. 900-1300 C.E.)” History of Science Department, University of Tehran, Tehran, Iran.
- November 1, WF, “The influence of Islamic science on the development of mathematics in Western Europe (ca. 900-1300 C.E.)”. House of Mathematics, Isfahan, Iran.
- November 4, JDo, “On motion, curves and instruments in the work of Descartes and Van Schooten,” Novembertagung 2010, Institut für Mathematik, Johannes Gutenberg Universität, Mainz.
- November 5, WF, “The influence of Islamic science on the development of mathematics in Western Europe (ca. 900-1300 C.E.)”. Gilan Astronomical Society, Rasht, Iran.
- November 6, JH, “Dead texts versus living teachers: remarks on the transmission of Greek mathematics into Arabic.” Montreal, History of Science Society Annual Meeting.
- November 8, JH, “Popularizing Islamic science by means of workshops,” Institute for Islamic Studies, McGill University, Montreal, Canada.
- November 9, JH with Eric van Lit (master student at McGill), astro-labe workshop. Institute for Islamic Studies, McGill University, Montreal, Canada. 20 participants.
- December 7, JH: “Three mathematicians and their interactions: Van Roomen, Van Ceulen and Scaliger (1590-1600),” Leiden, Lorentz Center.
- December 7, WG, Hüseyin Şen, Workshop on Escher and Islamic tilings, Den Haag, Marokko-Instituut (Nederlands Arabische Kring), 25 participants.
- December 8, JDo, commentary on the lecture by Hendrik Lenstra on early number theory, Leiden, Lorentz Center.
- December 8, 16:00, SW, public lecture “Ludolph van Ceulen en zijn werk *Vanden Circkel*” [Ludolph van Ceulen and his work *Vanden Circkel*] Salon Boerhaave, Museum Boerhaave, Leiden.

## Media

- JH, ca, 8 min. live radio interview by Pieter van der Wielen in the program Villa VPRO / Noorderlicht, Radio 1, May 25, 2010, 15:30-15:40.
- article by Bennie Mols in NWO, Hypothesis 17, issue 3, august 2010, on the NWO-project MathIndi which resulted in Kim Plofker’s book. ISSN 1381-5652. English translation in: “Sanskrit verses in praise of mathematics,” pp. 22-23 of the English version.

- JH, full-page interview in Volkskrant, wetenschapsbijlage p. 7, November 6, 2010.
- SW, interview “Wiskundigen herdenken 400ste sterfdag van ontwikkelaar Pi-getal”, broadcast in Nieuwslijn Magazine, Radio Nederland Wereldomroep, December 9, 2010.

## Visits

- Frankfurt, Institut für Geschichte der arabisch-islamischen Wissenschaften, JH, WHEN?
- KFUPM, Dhahran, Saudi Arabia, JH with Wilfred de Graaf, March 18 - April 3
- Paris, Université Paris-Diderot, SW, March 22-23.
- Leiden, Conference: Newton in the Netherlands, Leiden University (Museum Boerhaave), April 21-22, SW.
- Istanbul, IRCICA, Islamic Astronomy Panel, May 7-8, JH.
- Iran, Isfahan, Mathematics House, and Yazd, Mathematics House, May 13-23 (Goossen Karssenbergh)
- Paris, JDo, JH, SW, May 19-21.
- Frankfurt, Institut für Geschichte der arabisch-islamischen Wissenschaften, JH with a group of 8 students, May 31 - June 1.
- Paris, Université Paris-Diderot, Colloqie Institut Henri Poincaré, Séminaire Histoire des tables numériques SW, June 4-5. <http://www.rehseis.cnrs.fr/spip.php?rubrique148>
- Frankfurt, Institut für Geschichte der arabisch-islamischen Wissenschaften, JH, July 12-14.
- Barcelona, World Conference for Middle Eastern Studies, JH, July 20-22.
- Khujand, Tajikistan, Conference in honour of Abū Ḥāmid al-Khujandī, WF, October 20-21. (Visit to Tajikistan was preceded and followed by visits to Iran in the period Oct. 17-Nov. 7.)
- Frankfurt, Institut für Geschichte der arabisch-islamischen Wissenschaften, JH, Oct. 25-26.
- Montreal, History of Science Society Annual Meeting, and Institute for Islamic Studies, McGill University, JH, Nov. 4-9.
- Mainz, 3-7 november, Novembertagung (Institut für Mathematik, Gutenberg-Universität) JDo

## Visitors from Abroad

- January 5: Dr. Djura Paunic, Novi Sad, Serbia.
- April 29: Prof. Dr. Michael Nauenberg, University of California, Santa Cruz.
- xx (WHEN?): Dr Benno van Dalen, Frankfurt
- Dec. 15-24, Mr. Viktor Blåsjö, Dept of Mathematics Education, University of North Colorado, Greeley Co.
- Dec. 18-20, Dr. Kim Plofker, Union College, Schenectady NY, USA.

## Organisation of Conferences

- JDo was co-organizer of the publieksdag “De wereld in Kaart” [day for a general audience on world maps in early modern history], 23 januari 2010, Utrecht Centre for Early Modern Studies (UCEMS), Faculty of Humanities, University of Utrecht.
- SW was organizer of a parallel session, consisting of a group of four related workshops on the theme “Ludolph van Ceulen, veel meer dan 3141592/1000000 [Ludolph van Ceulen, much more than 3141592/1000000],” at the Nationale Wiskundedagen, Noordwijkerhout, February 5-6 2010. The audience consisted of between 40 and 60 participants. Program:
  - Feb. 5, 14:00-14:45, SW: Cirkelkwadraturen recht en krom [circle quadratures straight and crooked];
  - Feb. 5, 15:30-17:00, Ing. Marianne de Nijs en Margot Reinierse: Ludolph van Ceulen - Lesmateriaal van toen bewerkt voor leerlingen van nu [material from lessons at the time of Ludolph van Ceulen organized for modern highschool students];
  - Feb. 6, 9:15-10:00, Jantien Dopper and Wiggert Loonstra: Ruzie en rekenvaardigheden onder rekenmeesters: Van Ceulen, Petri en Goudaen in conflict [quarrels and computational abilities among arithmetic teachers: Van Ceulen, Petri and Goudaen in conflict]
  - Feb. 6, 10:15-11:00, Dr Liesbeth de Wreede: Van Ceulen en Snellius over paren van een lijnsegment en een getal: een dialoog [Van Ceulen and Snellius on pairs of a line segment and a number: a dialogue].
- SW was organizer of the minisymposium on History of Mathematics on April 24, which symposium was part of the Nederlands Mathematisch Congress (Dutch Mathematical Congress) in Utrecht. Theme of the minisymposium was the diffusion of knowledge of mathematics in the Netherlands around 1600. Program of the minisymposium:
  - 10:45-11:20 Ad Meskens (Antwerpen): Leve de Republiek! De Antwerpse rekenmeesters ten tijde van de godsdienstoorlogen

- 11:25-12:00 Steven Wepster (Utrecht): Ludolph van Ceulen, veelhoeken en veeltermen (Ludolph van Ceulen, polygons and polynomials)
- 12:05-12:40 Djoeke van Netten (University of Amsterdam) Drukkers en uitgevers en de verspreiding van wiskunde in de zeventiende eeuw
- JH was co-organizer (together with Prof. Sonja Brentjes, Department of Philosophy and Logic, University of Sevilla, Spain) of a Round table on 'Astronomy and Astrology in Antiquity and the Middle Ages' which took place at the International Conference of Historical Sciences 2010 in Amsterdam, on Friday, August 27, 9:00-12:00. Contributors were:
  - Dr Miquel Forcada, Department of Arabic Studies, University of Barcelona, Spain.
  - Dr Daryn Lehoux, Department of Classics, Queens University, Kingston, Ontario, Canada.
  - Dr Günther Oestmann, instrument maker ([www.arsmechanica.de](http://www.arsmechanica.de)) and historian of sciences, connected to the Maritime Museum in Bremerhafen and the Technical University at Berlin.
- SW organized the 'Ludolph van Ceulen year' (2010) in commemoration with the 400th anniversary of the death of the famous Dutch mathematician Ludolph van Ceulen. Among the activities was a series of eight articles in the journal *Euclides*. Some of the articles have been mentioned under 'publications'. Here is the complete series:
  - Steven Wepster, Ludolph van Ceulen (1540-1610): In de ban van de cirkel, *Euclides* 85 no. 3 (dec. 2009), 98-101;
  - Gijs Langenkamp and Wiggert Loonstra, Ruzie met Van Ceulen, *Euclides* 85 no. 4 (jan. 2010), 138-140;
  - Fokko-Jan Dijksterhuis, Wiskunde op stand: de plaats van wiskundigen in de vroege Republiek, *Euclides* 85 no. 5 (maart 2010); 186-188;
  - Jantien Dopfer, Duytsche Mathematicque, *Euclides* 85 no. 6 (mei 2010), 230-233;
  - Jaap Top, Vijfendertig decimalen, *Euclides* 85 no. 7 (juli 2010), 270-272;
  - Liesbeth de Wreede, Leermeester en leerling in gesprek, *Euclides* 86 no. 1, 41-44 (sept 2010);
  - Danny Beckers, Het rekenen meester, *Euclides* 86 no. 2 (oct 2010), 71-75;
  - Jan Hogendijk, Van Ceulen tegen de wiskunde van Scaliger, *Euclides* 86 no. 3, 108-110 (dec 2010).
- P.M. JH chaired a session on ancient science (organized by Daryn Lehoux and Serafina Cuomo, with speakers Lehoux, Cuomo, Reviel Netz and Brooke) in the History of Science Society Meeting, in Montreal (Canada) on Nov. 5, 2010, 9-11:45 am.

- SW was co-organizer (together with Dr. Fokko Jan Dijksterhuis, University of Twente, and Dr. C.M.J.M. van den Heuvel, KNAW) of the workshop “Mathematical Life in the Dutch Republic” at the Lorenz Center (in cooperation with Netherlands Institute for Advanced Studies, Wassenaar), in Leiden, Dec. 6-10, 2010. Programme:
  - Monday 6 December.
    - \* 10.30-11.00 Welcome and opening.
    - \* 11.00-12.15 Keynote Lecture. Matteo Valleriani (Max Planck Institute for the History of Science, Berlin). Practical and theoretical knowledge in early modern Italy. Commentator: James McAllister
    - \* 14.00-15.15 Liesbeth de Wreede (Leiden/Utrecht). Heron’s Theorem and beyond: Van Ceulen’s, Snellius’s and Descartes’s use of arithmetic in geometry. Commentator: Bart Karstens.
    - \* 15.45-17.00 Stephen Johnston (Oxford). Practices of Mathematics in England. Commentator: Tim Nicolaije.
    - \* 17.00-17.30 Flash Presentations by Junior Researchers
  - Tuesday 7 December.
    - \* 9.00-10.15 Keynote Lecture. Rienk Vermij (Oklahoma). What happened to astrology? Commentator: Matteo Valleriani. Break
    - \* 10.45-12.00 Jan Hogendijk (Utrecht). Van Ceulen and Van Roomen, Scaliger. Commentator: Fokko Jan Dijksterhuis
    - \* 13.00-13.30 Introduction to CKCC.
    - \* 13.30-15.30 Group Discussions.
    - \* 16.00-17.15 Jaap Top (Groningen). Van Ceulens Epitaph. Commentator: Jan van Maanen.
  - Wednesday 8 December.
    - \* 9.00-10.15 Fokko Jan Dijksterhuis (Twente). The Metius Dynasty. Commentator: Huib Zuidervaart. Break
    - \* 10.45-12.00 Hendrik Lenstra (Leiden). Early Number Theory. Commentator: Jantien Dopper.
    - \* 13.00-16.00 [public] History Lab at Boerhaave Museum, reading and assessing historical mathematical instruments and texts.
    - \* 16.00-16.45 Public Lecture in Boerhaave (in Dutch), “Ludolph van Ceulen en zijn werk *Vanden Circkel*” Steven Wepster (Utrecht).
    - \* 16.45-17.15 Dutch Championship Circle Drawing.
  - Thursday 9 December
    - \* 9.00-10.15 Charles van den Heuvel (KNAW/VKS). Servants of Mathesis: Practical Demonstrations and Rethorical Use of Mathematics. Commentator: Djoeke van Netten.

- \* 10.45-12.00 Keynote Lecture. Kirsti Andersen (Aarhus). Dutch mathematicians contribution to the geometrical theory of perspective. Commentator: Jeroen Goudeau.
  - \* 15.00-16.15. Michael Korey (Dresden). Mathematicians and Instruments at German Courts . Commentator: Nicols de Hilster.
  - \* 16.15-17.30 Ad Meskens. Mathematics in Antwerpen. Commentator: Gabrielle Winkel.
- Friday 10 December
- \* 9.00-10.15 Group Presentations
  - \* 10.45-12.30 Round Table. Mathematics and the Republic in History Break
  - \* 13.30-15.00 Keynote Lecture. Klaas van Berkel (Groningen). 25 Years in the Voetspoor of Stevin.

## Honours and Awards

JH was Adjunct Professor in the History of Science Department of Tehran University from Jan. 1 - June 30, 2010.

JH was installed as member of the Royal Dutch Academy of Science on Sept. 13, 2010.

JH was elected as member of the Stiftungsrat (board of trustees) of the Institute for History of Arabic-Islamic Science (Frankfurt) on July 13, 2010.

## Courses, Bachelor Theses and Master Theses related to the History of Mathematics

- M.Sc. thesis (Science Teacher Education, UU): Marjanne de Nijs en Margot Rijnerse, Lesmateriaal voor havo/vwo, gebaseerd op het werk van Ludolph van Ceulen [material for highschool teaching in mathematics, based on the work of Ludolph van Ceulen (1540-1610)], march 2010 [2 times 30 ECTS, supervised by SW]
- M.Sc. thesis (Science Teacher Education, UU): Meike Rouwenhorst, Vierhonderd jaar wiskunde tot nut ende vermaak: Ludolph van Ceulen's opgaven afgezet tegen hun oplossing door Laurens Praalder, june 2010 [30 ECTS, supervised by SW]
- M.Sc. thesis (History and Philosophy of Science, UU): Hüseyin Şen, Taqī al-Dīn's introduction to his work on sundials: Fragrance of Spirit on Drawing Horary [Lines] on Plane Surfaces. August 25, 2010 [30 ECTS, supervised by JH]
- B. Sc thesis (Liberal Arts and Sciences): Amy Besamusca, "De neusis" [7,5 ECTS, supervised by SW], dec. 2009
- B. Sc. thesis (mathematics): Bart Russel, De Geometrica van Gerard Kinckhuysen, May 2010 [7,5 ECTS, supervised by SW]

- B.Sc. thesis (mathematics): Marianne Hoksbergen, *Praktisch handboek of wetenschappelijke verhandeling? Over landmeetkunde in Van Ceulen's Vanden Circkel*, [7,5 ECTS, supervised by SW] june 2010.
- B. Sc. thesis, Hannah Tops: "Een verkenning van de wiskunde uit India" [7,5 ECTS, supervised by SW]
- Essays written by participants who passed the course "History of Mathematics' (WISB 281, 7.5 ECTS credits, 30 students passed this course), Utrecht, Fall 2009, taught by SW; essays were turned in in early Spring 2010:
  - Jutta von Heymann, Michael Pachali, "Frauen in der Geschichte der Mathematik."
  - Merijn Schipper, Tobias Huisman, "Germaniae Mappa Critica en haar verband met een afstandstabel."
  - Joé van Hanegem, Stef Helsen "Wir müssen wissen / wir werden wissen." [on Hilbert]
  - Thomas Attema, Bart Post, "Fortificatie."
  - Fiona Sloothaak, Maartje van der Veen, Aafke de Vos, "Stemmingen in de muziek."
  - Saskia van den Hoeven, Dafne van Kuppevelt, "Muziek en wiskunde in Johannes Keplers Harmonice Mundi."
  - Nick Verheul, Wouter Koot, "De geschiedenis van ons decimaal getalstelsel."
  - Lydia Brenner, Guusje Peerboom, "De ontwikkeling van het lesmateriaal voor wiskundeonderwijs in de achttiende eeuw in Nederland."
  - Hans Broekhuis, Patrick van Stiphout, "De meetkunde bij de Grieken, van maantjes tot curves."
  - Tim Petoukhov, "Filosofie van de wiskunde rond de 17de en 18de eeuw."
  - Tessa de Bruijn, Mirjam Stienstra, "Leraren in het oude Griekenland: Pythagoreeërs versus sofisten."
  - Lianne Hulbosch, James van Viersen, "Egyptische wiskunde."
  - Markus Morsink, Jos van der Maas, "Wiskunde bij de Maya's."
  - Sharita Debi, Lennart Wilmink, "Het ontstaan van de niet-euclidische meetkunde."
  - Sjaak van Diepen, Simon Stuy "Dedekind en Eudoxus vergeleken."
- Projects written by the participants of the master thesis Historical Aspects of Classroom Mathematics (WISL910, formerly WISM482), taught by SW in spring 2010 31 participants passed this course (8 ECTS credits)

- Tom Huls, Tim Verheijen, “Mathematics: all unravelled or still flourishing?.”
  - Frank Jansons, Valentijn de Marez Oyens, “Van den Knollen ende Citroenen.”
  - Ekaterina Ejikova, Tessa van der Hoorn, “Escher and Beyond....”
  - Shintia Revina, Fridgo Tasdman, “Developing the Understanding of Place Value Concepts Through Learning Various Numeral System.”
  - Reshmi Pradeep, Inambao Wakwinji, “Coordinate Geometry: How games can make mathematics interesting and proofs beautiful.”
  - Meyansumayeka, Nenden Octavarulia Shanty, Zetra Hainul Putra, “Learning how to Solve Quadratic Equations through History.”
  - Lathiful Anwar, Kurnia Rahmi Yuberta, Puri Pramudiani, “Integrating History of Chinese Algorithm in Learning Mathematics: Extraction of Square Root.”
  - Elisabet Ayunika Permata Sari, Fatimatul Khikmiyah, Veronika Fitri Rianasari, “Measuring Height.”
  - Cut Khairunnisak, Destina Wahyu Winarti, “Perspective Drawing.”
  - Adriaan Schipper, Sanne Spoelstra, “Illustrating the Quadratic Formula with Al-Khwarizmi’s Algebra.”
  - Zoebaida Fiamingo, Evelien Kerkmeijer, “Changing Perceptions of Probability Theory through History.”
  - Geoffrey Bowes, Lavinia Opris, “Calculus: Its Historical Development, Achievements, and Elegance.”
  - Stefaan Nachtergaele, Maartje van der Veen, “Quadratic Geometry: Quadratic Equations made fun with geometry.”
  - Deborah Cabib, Timo Baas, “On the Pascal Triangle and Proofs by Induction: A Short Guide for Teachers.”
- Two groups of students wrote papers, supervised by JH, in the context of the mathematics course *Caleidoscoop 1* for freshmen:
    - Tom Zwinkels, Joost Renes, Rob Klabbers, Leonhard Euler en Reeksen [leonhard Euler and Series], Feb. 2010
    - Pieter de Haan, Wouter van Krieken, Alexander Vervuurt, Eenvergelijking van boldriehoeksmetkunde met hyperbolische meetkunde, June 2010.
  - Essays written for the seminar Mathematics and Islamic Art, taught by JH in Spring 2010 (7.5 ECTS). 9 participants completed this seminar:
    - Annet Holst, Daphne van Kuppevelt, Het astrolabium
    - Hasse van Boven, Pieternel van Oers, De islamitische invloeden op de dom van Florence

- Saskia van der Hoeven, Maartje van Veen, Muqarnas (in English), and workshop Muqarnas
  - Cora van den Heuvel, Trudy van der Kolk, Behangpatronen
  - Thekla Teunis, De vrijdagmoskee in Isfahan, een reisgids.
- A course in the history of mathematics was conducted by the Utrecht research group in History of Mathematics in the program HOVO (Hoger Onderwijs voor Ouderen = Higher Education for Seniors) at the University of Leiden. Title of the course: Het moeizame huwelijk van algebra en meetkunde - Nederlandse wiskunde in de Gouden Eeuw. [The difficult marriage of algebra and geometry - Dutch mathematics in the Golden age] The program consisted of weekly lectures in Dutch of 2 hours, for 15-20 participants. The course was coordinated by LW.
    - Feb. 10, LW, Inleiding.
    - Feb. 17, LW, Simon Stevin (1548-1620), François Viète (1540-1603), Adriaan van Roomen (1561-1615).
    - Feb. 24, SW Ludolph van Ceulen (1540-1610) en meetkunde en algebra.
    - March 3, JDo De polemieken van Ludolph van Ceulen.
    - March 10, LW, Willebrord Snellius (1580-1626).
    - March 17, JDo, SW, LW, Excursion to the Special Collections Department (old printed books) of the University Library in Leiden.
    - March 24, JDo Het denken van René Descartes (1596-1650) over meetkunde en algebra.
    - March 31, SW Johan Stampioen de Jonghe (1610-1690) en de teerling.
    - April 7, JDo Frans van Schooten (1615-1660).
    - April 14, SW De wangen van Christiaan Huygens (1629-1695).

### **Courses and activities, not history related**

- SW: Jan 29, together with Vincent van der Noort, workshop on “sound and Fourier transformation”, science day for highschool students (vwo-3), 150 students (the workshop was held four times).
- SW, May 11 (with Dr. Quintijn Puite), organisation of regio-netwerkbijeenkomst wiskunde D voor docenten, Utrecht University.
- SW, Aug. 30 - Sept. 3, summer course for ca. 22 prospective freshmen in chemistry in order to remedy deficiencies in the necessary (highschool) mathematical knowledge and abilities. This course was taken on a voluntary basis by ca. half of the chemistry freshmen.

- SW, sept. 2010 - april 2011, Mathematics for Chemists 1A (= 2,5 ECTS) and 1B (= 5 ECTS) for 49 freshmen and a few students in their second year.
- JH, Sept - Oct. 2010, course Infinitesimaalrekening A (WISB 132), i.e. single-variable calculus for freshmen, 7,5 ECTS, 119 students passed the course in Nov. 2010 and/or January 2011.
- JH, Nov-Dec. 2010, course Infinitesimaalrekening B (WISB 133), i.e., multi-variable calculus for freshmen, 3,75 ECTS.
- JH, Nov. 2010-Jan. 2011, course on the interactions between Islamic culture and Western culture and science, B.Sc. program in history, 22 students, 7,5 ECTS.