

CHAMA NEWSLETTER

Commission for History of Ancient and Medieval Astronomy

Editors: S.M. Razaullah Ansari, Anne Tihon

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Assistant Secretary: Laurence Tuerlinckx

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FOREWORD BY THE PRESIDENT

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It is a pleasure to inform our readers that our Commission's symposium has been approved by the Programme Committee. It has been assigned the No. S-1. The title is: "*Ancient and Medieval Astronomy with Special Emphasis on its Socio-Cultural Context*". We are publishing in this issue a tentative programme of this Symposium. To note is that the first session is on "*Ptolemy's Writings and their Transmission*". It must be confessed, that due to inadequate funding this Commission could not fulfil its promise of organising a symposium on Ptolemy in May 2008. Therefore, we decided to include this important topic as one of the sessions of CHAMA Symposium at Budapest Congress in 2009. Although the symposium comprises only invited talks, yet any member of the Commission who is interested to submit his paper may contact the Organising Committee, and we shall try to accommodate his/her paper definitely in a poster session, sponsored by this Commission.

The *Second Circular* of History of Science Congress (Budapest 2009) is now available at its Website. Please note, that the dates of the Congress are now 28 July - 2 August 2009.

We are publishing in this issue a list of its Important Dates or Deadlines. Please note particularly that the Abstract of a paper or talk has to be posted on its Website by the contributor or speaker himself. Please follow the instructions as given in the Second Circular.

May I request the *invited speakers* to kindly send their *tentative* Abstract to me by the end of December 2008, and to submit their Final abstract to LOC according to their convenience with a copy to me.

It is very sad that three colleagues have passed away during 2007-08. Mrs. N. Raghavan (Chennai/India), K. D. Abhyankar (Hyderabad /India) and John North (Oxford/England). Where Abhyankar's papers on ancient Indian Astronomy are well known, North (d. 31 Oct. 2008) will be missed by many of us for his remarkable and prolific astronomical-astrological histories, be they on *God's Clockmaker*, Chaucer's *Treatise on Astrolabe*, or *Horoscope and History*. We are grateful to him that he sent us a short list of his recent publications already in summer, and which we are publishing along with a short description of the revised edition of his opus: *An Illustrated History of Astronomy and Cosmology*.

As in the previous issues, we continue to publish projects and publications of our members. For our readers' interest, we are also listing selected articles of a few periodicals, for instance from *Subhaya* (Barcelona) and *SCLAMVS* (Kyoto).

Information about two prizes, one to the well known astrophysicist DeVorkin and another to a young Indian historian of astronomy and an expert of classical Sanskrit, Ramasubramanian (Mumbai/India), is also included in this issue.

I hope that the news about important events and about members' publications here will motivate others to give us feed back for future issues of this *Newsletter*. Kindly note also the declaration by UNESCO: 2009 as the *International Year of Astronomy*. Please visit its website for further details.

Last but not the least, I may add that in this issue we are presenting notices on three important books on history of astrology: One is by Nicholas Campion, who is known for defying the Greek origin of astrology and tracing its roots back to Neolithic culture and ancient civilisations of Mesopotamia and Egypt. Out of the two books by James Holden, we stress upon one, which comprises translation of astrological aphorisms: *Centiloquium* by Ptolemy, Hermes, and Bethen and also aphorisms by two Arabs(8th -9th c.): Yahyā ibn abī Mansūr and Abū Ma'shar al-Balkhī. Besides these new books, may I draw members' attention also to Maurice A. Finocchiaro's, "extensive selection of Galileo's key works from his early career to the end of his life" translated into English, to a recent facsimile edition of the original edition (Oxford 1913) of Sir Thomas Heath's *Aristarchus of Samos*, and to an invited review of the unique expositive astronomical-mathematical text in *Malayalam*, a language of South India. In all we are presenting in this issue notices about seven books.

Finally, I am gladly acknowledging here our new assistant editor, Ms. Laurence Tuerlinckx, who has revised painstakingly and upgraded the Commission's Website. Members are requested to verify their data, to send their suggestions to her for the improvement of the Website and also to help us in collecting news items and publications in ancient and medieval astronomy. Please motivate your colleagues or acquaintances, especially young scholars, to join CHAMA. Our procedure is very simple. A form for registration is printed on the last page of this *Newsletter*. Please fill-up this form and send to any one of us.

I solicit your cordial cooperation and interaction during 2009, and wish all members a very happy New Year 2009.

S. M. Razaullah ANSARI

XXIII International Congress of History of Science and Technology

Ideas and Instruments in Social Context

Budapest, Hungary

Change of dates: 28 July - 2 August July, 2009

Reminder: important deadlines

Deadline for determination of the final symposia programs: 15 December 2008

Deadline for grant application: 15 December 2008

Deadline for submission of paper abstract: 15 March 2009

Deadline for early registration: 30 April 2009

Kindly visit the Congress site, and open the link: Second Circular:

http://www.conferences.hu/ichst09/Second_circular-final3.pdf

Please read the instructions for the submission of Abstracts. To note is that every participant/speaker has to post his Abstract *himself* at the Congress Web-site.

Contact Address: Dr. Eva Vamos, Chairperson of LOC, e-mail address: <vamos.eva@chello.hu> , and/or her assistant Ms. Marianne Kindl , kindl@sztaki.hu

CHAMA SYMPOSIUM S-1 (BUDAPEST 2009)

ANCIENT AND MEDIEVAL ASTRONOMY WITH SPECIAL EMPHASIS ON ITS SOCIO-CULTURAL CONTEXT

Organizers: S. M. R. Ansari (India) Chair, Julio Samsó (Spain), Anne Tihon (Belgium)

Tentative Programme

Session I: Ptolemy, His Writings and their Transmission: Status of Present Research

1. Alexander Jones (Toronto/Canada), Babylonian and Greek Antecedents of Ptolemy's Tables.
2. Anne Tihon (Louvain/Belgium), The Scientific Context of Ptolemy's work as shown by a New Greek Papyrus.
3. R. Mercier (UK), Introducing the Edition of Handy Tables.
4. Julio Samsó (Barcelona/Spain), Mustawfī Zīj by Ibn al-Raqqām of Tunis and Granada (14th c.).
5. Jamil Ragep (Montreal/Canada), Islamic Responses to Ptolemy's Planetary Hypotheses.
5. José Bellver (Barcelona/Spain), Ptolemaism in al-Andalus: Jābir b. Aflah and the Evolution of the Term Hay'a.
6. K. Ramasubramanian, (Mumbai/India), Samrātsiddhānta: the Sanskrit translation of *Almagest* by Jagannātha.
7. S. M. R. Ansari, (Aligarh/India), The Indian scholar Khayrullāh Muhandis and his Persian Translation of al-Ṭūsī's Recension of *Almagest*.

Session II: Contextual Oriental Studies

8. Sonja Brentjes (Seville), Patronage of Astronomy and Astrology in Post-classical Islamic Societies.

9. Michio Yano, (Kyoto/Japan), Buddhist Astronomy in its Cultural Context.
10. Yunli Shi (Hefei/China), Knowledge Secrecy, and the Transmission of Islamic Astronomy in the 14th C. China.
11. Xiaochun Sun (Beijing/China), The Impact of Telescope on Chinese Astronomy in the 17th and 18th Centuries.
12. François Charette, (Canada/Germany), The Language of Diagrams in Pre-modern Astronomy.
13. S. R. Sarma (India/Germany), Yavana-yantra to Yantra-rāja: Reworking of Arabic Astrolabes in India.
14. S. Sriram (Chennai/India), Astronomy Chapters of the Kerala Work, Yuktibhāsha (circa 1530 CE).
15. Farid Ghassemlou and Fariba Sabet (Tehran/Iran), A Survey of Persian Zijes extant in Iran with special stress on their use in Medieval Iranian Society.

OBITUARIES

Nirupama Raghavan

(19th July 1940 - 23rd February 2007)

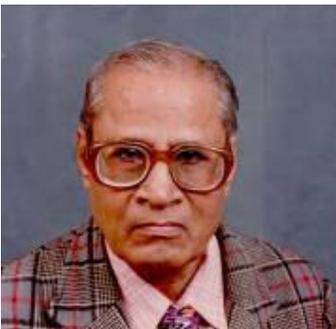


Dr. Nirupama Raghavan (Ex. Director Nehru Planetarium, Delhi) left for heavenly abode at Chennai on 23rd February 2007 after a long battle with cancer. A noted Astrophysicist and educator, she did her Ph.D. under Prof. Venu Bappu (Director, Indian Institute of Astrophysics, Bangalore). In 1982 she joined Nehru Planetarium, Delhi as planetarium educator and later became its Director. During her tenure, she encouraged students and amateur astronomers in the field of astronomy and space sciences. She was a member of International Astronomical Union and Astronomical Society of India.

Text and photo from: <http://space-india.net/pages/nirupama.htm>

K D Abhyankar

(21st June 1928 - 8th November 2007)



Prof. Abhyankar was founder member, treasurer, president and editor of the Bulletin of the Astronomical Society of India (ASI).

After completion of his M.Sc. from Agra University, he obtained a Government of India senior research fellowship and worked at the Kodaikanal Observatory during 1952-1954, before his doctoral studies. He studied for his Ph.D. thesis (at the University of California, Berkeley) close binary stars to understand processes of stellar evolution. On his return from USA, he worked for a short while at the Kodaikanal Observatory before joining Osmania University, where he introduced Astronomy at the graduate and postgraduate levels. In 1967, he worked as a senior post-doctoral resident research associate of NRC-NASA of USA at Jet Propulsion Laboratory, Pasadena.

Prof. Abhyankar has played a critical role in establishing the Japal Rangapur Observatory (JRO) near Hyderabad(India). He served as the director of JRO and as Head of the Department of Astronomy (Osmania University, Hyderabad) he was In-charge of JRO during 1961-63, 1973-81, 1986-88, till he retired in 1988. He also served as Dean, Faculty of Science of Osmania University (Hyderabad) during 1977-80.

In 1972, he founded the Astronomical Society of India (ASI), in which he served as the President during 1980-82. He has taken an active part in different scientific associations. He has been elected Fellow of Royal Astronomical Society, Indian Academy of Sciences, Indian National Science Academy, Member of Sigma Xi of USA, Member of Astronomical Society of the Pacific, American Astronomical Society and International Astronomical Union and he has been the Chairman of the Advisory committee of the Positional Astronomy Centre, Calcutta. He was also the founder member of Andhra Pradesh Academy of Sciences and Maharashtra Academy of Sciences.

Prof. Abhyankar was a man of action and an enthusiastic researcher, but also an excellent teacher who has been awarded the best teacher award by the Andhra Pradesh Government. He secured also Indian National Science Academy Vainu Bappu Award and M.P.Birla Award for his academic achievements.

Prof. Abhyankar dedicated all his life to his passion for astronomy.

His bibliography comprises 3 books and more than 150 research papers, which cover mainly three domains: Solar Physics, Binary and Variable Stars, Radiative Transfer and Planetary Atmospheres. After retirement, he became keenly interested in the history of Indian mathematical astronomy and contributed a number of important papers in *Indian J. of History of Science* (New Delhi).

Text and photo from: http://www.iucaa.ernet.in/~asi/K_D_Abhyankar.html

John North

(19th May 1934 - 31st October 2008)

At the time of ending the edition of this NL, we have just learnt the sad news of the death on Friday October 31, of John North, member of CHAMA, a historian of the sciences and of the astronomy (especially Latin sources), whom everybody appreciated.

John North was emeritus professor of History of Science and Philosophy at the University of Groningen in the Netherlands; he joined the Groningen Faculty of Philosophy in 1977. He was chairman of the Department of History of Philosophy and served as dean of the faculty. He had begun his career by winning a Nuffield Foundation fellowship in the field of history of science at Oxford University, from 1963 to 1968. From 1983 to 1993, John North was Secretary of the Académie Internationale d'Histoire des Sciences.

His bibliography is rich with many books, including *The Measure of the Universe: A History of Modern Cosmology*, *The Ambassadors Secret: Holbein and the World of the Renaissance*, and, most recently, *Gods Clockmaker: Richard Wallingford and the Invention of Time*.

He recently had informed us about the publication of his last work: *Cosmos: An Illustrated History of Astronomy and Cosmology* presented below (p. 7).

One can find homage to John North on the University of Groningen website:

In memoriam, by Lodi Nauta:

<http://www.rug.nl/filosofie/nieuws/actueel/JohnNorthInMemoriamEN.pdf>

A detailed paper about the life and work of John North is available on the website of The Independent: <http://www.independent.co.uk/news/obituaries/professor-john-north-historian-of-science-who-made-spectacular-raids-into-archaeology-art-and-literature-1032230.html>

NEW BOOKS

1. James Herschel HOLDEN, *A History of Horoscopic Astrology: From the Babylonian period to the Modern Age*, Tempe (Arizona): American Federation of Astrologers, Inc., 2nd edition, 2006. Pp. xviii + 378; ISBN-13: 978-086690-463-6; 29.95 USD.

Presentation by the publisher:

This thoroughly researched history traces astrology from its origins among the Babylonians to its present form. Comprehensive indices, as well as special attention to the background history and working conditions and techniques used by astrologers during the past 2,000 years.

2. James H. HOLDEN (Author), Kris R. BRANDT (Editor), Jack CIPOLLA (Illustrator), *Five Medieval Astrologers*, Tempe (Arizona): American Federation of Astrologers, 2008. Pp. 164; ISBN-13: 978-086690-578-7; 21.95 USD.

Presentation by the Publisher

This book contains translations of five astrological treatises by Medieval astrologers: Albumasar: The Book of Flowers, an anthology of rules for Mundane Astrology; Ptolemy: The Centiloquy; Hermes Trismegistus: The Centiloquy; Bethen: The Centiloquy; Almansor: The One Hundred and Fifty Propositions. This is the first comprehensive publication of these treatises, which were translated by James Herschel Holden, Research Director of the American Federation of Astrologers. He is especially interested in Classical and Medieval astrological works.

Our comments

Valuable historical information can be found in these books (1 & 2), in spite of the astrological proselytism of the author.

3. Nicholas CAMPION, *The Dawn of Astrology: A Cultural History of Western Astrology (The Ancient and Classical Worlds)*, New-York: Continuum International Publishing Group, 2008. Pp. 388; ISBN-13: 978-184725-214-2; 29.95 USD.

Presentation by the Publisher

The Dawn of Astrology covers the period between the first Paleolithic lunar counters around 30,000 BC and the end of the classical world and the rise of Christianity. Nicholas Campion examines the relationships between astrology, religion, magic, and science, as well as its use in politics and the arts with clarity and originality and relates the theory of astrology to examples of its use at all levels of society.

Many have assumed that astrology was invented by the Greeks, but Campion challenges this idea and traces the discipline's roots back to Neolithic culture, Mesopotamian astral divination, Egyptian stellar religion, and attitudes to astrology and celestial prophecy in the Bible. Beginning with theories of the origins of religion in sun-worship and such artefacts as the mysterious, fifteen-thousand year-old "Venus of Lauselle", Campion considers the reasons for the orientation of the pyramids, the latest theories on Stonehenge as a sacred observatory, Greek theories of the ascent of the soul to the stars and the Roman emperor Nero's use of astrology to persecute his rivals. The contribution of Jewish cosmology, which was to be vital in shaping Christian views of astrology, is also investigated and explained.

This is the first comprehensive examination of astrology's origins and examines the foundations of what has become a major feature of popular culture in the contemporary West. Its scope, depth and vast historical breadth — from the Stone Age to the end of the Roman Empire — is greater and more complete than any other book on the subject.

4. *The Essential Galileo. Edited and Translated by Maurice A. FINOCCHIARRO*, Indianapolis: Hackett Pub Co, 2008. Pp. 384; ISBN-13: 978-0872209374; 12,95 USD (paper), 39.95 USD (cloth).

Presentation by the publisher and review

“Finocchiaro's new and revised translations have done what the Inquisition could not: they have captured an exceptional range of Galileo's career while also letting him speak—in clear English. No other volume offers more convenient or more reliable access to Galileo's own words, whether on the telescope, the *Dialogue*, the trial, or the mature theory of motion.” (Michael H. Shank, *Professor of the History of Science, University of Wisconsin–Madison*).

“Edited and translated by Maurice A. Finocchiaro, an international authority on Galileo, this collection makes available to scholars and students an excellent and extensive selection of Galileo's key works from his early career to the end of his life—some in toto and some represented by key selections. It presents not only Galileo's most famous works but also a range of less-known texts as well as an excellent selection of the documents from the trial of 1633 and from the 1616 condemnation of Copernicus.

“In addition to the breadth and quality of the selections, this volume is particularly attractive to students and instructors thanks to Finocchiaro's expertise and up-to-date introduction, biographical sketch, chronology, annotated bibliography, and glossary. This is a must for anyone teaching or studying Galileo, the scientific revolution, and the relationship between science and religion.” (Comment by Mario Biagioli, *Professor of the History of Science, Harvard University*).

5. John NORTH, *Cosmos: An Illustrated History of Astronomy and Cosmology*, Chicago: University of Chicago Press, revised edition, 2008. Pp. 902 (21 colour plates, 201 halftones, 73 line drawings); ISBN-13: 978-022659-440-8; 39 USD (paper), 95 USD (cloth).

Presentation by the publisher

For millennia humans have studied the skies to help them grow crops, navigate the seas, and earn favour from their gods. We still look to the stars today for answers to fundamental questions: How did the universe begin? Will it end, and if so, how? What is our place within it? John North has been examining such questions for decades. In *Cosmos*, he offers a sweeping historical survey of the two sciences that help define our place in the universe: astronomy and cosmology.

Organizing his history chronologically, North begins by examining Paleolithic cave drawings that clearly chart the phases of the moon. He then investigates scientific practices in the early civilizations of Egypt, Greece, China, and the Americas (among others), whose inhabitants developed sophisticated methods to record the movements of the planets and stars. Trade routes and religious movements, North notes, brought these ancient styles of scientific thinking to the attention of later astronomers, whose own theories—such as Copernicus' planetary theory—led to the Scientific Revolution.

The work of master astronomers, including Ptolemy, Galileo, Kepler, and Newton, is described in detail, as are modern-day developments in astrophysics, such as the advent of radio astronomy, the brilliant innovations of Einstein, and the many recent discoveries brought about with the help of the Hubble telescope. This new edition brings North's seminal book right up to the present day, as North takes a closer look at last year's reclassification of Pluto as a “dwarf” planet and gives a thorough overview of current research.

With more than two hundred illustrations and a comprehensive bibliography, *Cosmos* is the definitive history of astronomy and cosmology. It is sure to find an eager audience among historians of science and astronomers alike.

6. Thomas Little HEATH, *Aristarchus of Samos: The Ancient Copernicus. A History of Greek Astronomy to Aristarchus together with Aristarchus's Treatise on the Sizes and Distances... A New Greek Text with Translation and Notes*, Boston: Adamant Media Corporation, 2007. Pp. 438 pages; ISBN-13: 978-1402147906; 8,90 GBP.

New edition of the classic work of Sir Thomas Heath (1st ed. Oxford, 1913), includes a critical Greek text and translation of Aristarchus's work, *On the Sizes and Distances of the Sun and Moon*.

7. *Ganita-Yukti-bhasa [Rationales in Mathematical Astronomy]* of Jyesthadeva, in two volumes. Vol. I: *Mathematics*, Vol. II: *Astronomy*. Malayalam text critically edited with English translation by K.V.Sarma, with Explanatory notes by K. Ramasubramanian, M.D. Srinivas and M.S. Sriram. New Delhi: Hindustan Book Agency, 2008. Pp 1084; 83,33 USD; ISBN: 978-81-85931-83-8.

New edition announced: International Springer – Hindustan Book Agency edition, to be published in March 2009. Pp. approx. 1085 in 2 volumes; approx. 152 EUR; ISBN: 978-1-84882-072-2.

Presentation by M.S. Sriram:

Ganita-Yukti-bhasa (Rationales of Mathematical Astronomy) of Jyesthadeva (c.1530) is a seminal text of the Kerala school of astronomy. It is composed in the Malayalam, which is the language of Kerala in the south-western part of India. Almost all the scientific literature in India in the ancient and medieval period are in Sanskrit, apart from the Islamic works. Here, it is the first time that a very significant original work is written in a local, spoken language. It presents detailed *yuktis* or explanations and demonstrations for the results and processes of mathematical astronomy. The text comprising fifteen chapters is naturally divided into two parts, Mathematics and Astronomy.

In the beginning of the work it is stated that its aim is to give an exposition of the techniques and theories employed in the computation of planetary motions as set forth in the great treatise *Tantrasangraha* (c.1500) of Nilakantha Somayaji. However, the mathematics part is really independent. It is divided into seven chapters. A distinguishing feature of this part is that it presents detailed demonstrations of the famous results attributed to Madhava (c.1340-1420), such as the infinite series for π , the arc-tangent and the sine functions, the estimation of correction terms and their use in the generation of faster convergent series, as also the surface area and volume of a sphere. The proofs for these are complete and very novel. One sees the beginnings of calculus here.

Indian astronomy is algorithmic in nature, and most of the important works like *Aryabhatiya*, *Suryasiddhanta*, etc. present essentially the procedures for astronomical problems, without detailed explanations. These are to be found in commentaries. Even these may not develop all the topics, systematically. *Ganita-yukti-bhasa* is unique in this aspect. Astronomy is developed logically as a subject. It is self-contained and written in the style of a textbook. The entire matter is in prose, and there are neither equations as we write now, nor drawings or figures. However, from the detailed descriptions, we can write down the equations, and draw the figures, without ambiguity.

It is patterned after *Tantrasangraha* in the sequence of topics and its every algorithm is explained/proved here.

The Astronomy part is divided into eight chapters and the usual topics in an Indian text like mean and true positions of planets, diurnal problems associated with the Sun and the Moon, eclipses etc., are covered. The discussion of the celestial sphere and the terrestrial sphere, is far more detailed here than in other texts. It presents systematic derivations of most of the results of spherical astronomy (pertaining to diurnal and shadow problems, parallax, eclipses, etc.) that are discussed in Indian Astronomy.

ACTIVITIES AND PROJECTS OF THE MEMBERS OF CHAMA

▫ **S. M. R. ANSARI**

“History of Astronomy in 19th Century India: A Survey of Archival Sources”, invited talk delivered at the *National Workshop on Preserving Our Scientific Heritage*, held at the Indian Institute of Astrophysics (Bangalore), Jan. 21-22, 2008.

“Exact Sciences in Medieval India: A Brief Historical Survey of Sources”, Special Lecture delivered at the Foundation Day Celebrations of Jamia Millia Islamia (New Delhi), held on Nov.1, 2008.

▫ **SREERAMULA RAJESWARA SARMA** (formerly Professor of Sanskrit, Aligarh Muslim University, India):

A Descriptive Catalogue of Indian Astronomical Instruments. For several years, S.R. Sarma has been surveying pre-modern Indian astronomical instruments, and has identified and studied some 450 specimens preserved in museums and private collections in India, Europe and the US. A descriptive catalogue of these instruments is in preparation.

In the last issue of this Newsletter (p. 11), we have published a reference to his talk on *Indian Astronomical Instruments in German Collections*. See also his new publications below.

▫ **Anne TIHON**

“An unedited astronomical papyrus” with Jean-Luc Fournet at the Institut Français d'Archéologie Orientale, Cairo (Egypt). Feb. 21-28, 2008. Edition and translation (with comments) of the papyrus in book form is under-preparation. Findings will be reported at the CHAMA Symposium (Budapest Congress, July-Aug. 2009).

“Problems raised by the edition of Greek and Byzantine astronomical texts”, a series of lectures at École Pratique des Hautes Études, Seminar of Mrs Brigitte Mondrain (Paris), February and March 2008.

RECENT PUBLICATIONS OF THE MEMBERS OF CHAMA

▫ **S. M. R. ANSARI**

“Astronomy and Mathematics in Medieval Indian and Persian Sources, with Special Reference to their Translation into Sanskrit”, *Proceedings of the National Symposium on Sciences in India: From Early Times to Independence*, held at the National Centre for History of Science, University of Mysore, Mysore, April 21-24, 2008; in press.

“On Ghulām Hussain Jaunpūrī—An India Astronomer of 19th Century”, in *Daneshname-ye Jahan-e Eslam: Encyclopaedia of the World of Islam*, edited by Golām ‘Alī Haddād ‘Ādel, Vol. XI (2007), pp. 387-389, Persian translation of the article by Farid Ghasemlou.

▫ **José CHABÁS and Bernard R. GOLDSTEIN**

“Transmission of computational methods within the Alfonsine corpus: the case of the tables of Nicholas de Heybech”, in *Journal for the History of Astronomy*, 39 (2008), pp. 345-355.

▫ **Bernard R. GOLDSTEIN**

“What’s New in Ptolemy’s *Almagest*?”, in *Nuncius*, 22 (2007), pp. 261–285.

▫ **Alena et Petr HADRAVA**

“Die astronomische Symbolik des Waldsteinpalais”, in [Waldstein. Albrecht von Waldstein. Inter arma silent musae?](#) ed. Eliška Fučíková a Ladislav Čepička. Praha, Academia, 2007, pp 149-157. ISBN 978-80-200-1591-4.

“Astronomy in Prague: from the past to the present”, in *Highlights of Astronomy*, Vol. 14. *Proceedings of XXVIth IAU General Assembly, August 2006*, ed. Karel van der Hucht. Cambridge: Cambridge University Press, 2007, pp. 3–13.

“Astronomy in Paulerinus’s Fifteenth-Century Encyclopaedia *Liber viginti arcium*”, in [Journal for the History of Astronomy](#), 38 (2007), pp. 305-324.

See the complete bibliography of Alena Hadrava at: <http://www.asu.cas.cz/~had/pubal.html>

▫ **Richard KREMER**

“John of Murs, Wenzel Faber and the computation of true syzygy in the fourteenth and fifteenth centuries, in Mathematics in the heavens and on earth”, in *Festschrift für Menso Folkerts zum 65. Geburtstag, Acta Historica Leopoldina*, 54 (2008), pp. 165-78.

“Abbreviating the Alfonsine Tables in Cracow: The Tabulae Aureae of Petrus Gaszowiec (1448)”, in *Journal for the History of Astronomy*, 38 (2007), pp. 283-304.

“Copernicus among the astrologers: A preliminary study”, in Menso Folkerts and Andreas Kühne (eds.) *Astronomy as a model for the sciences in early modern times*, Augsburg: Rauner Verlag, 2006, pp. 225-52.

▫ **John D. NORTH**

God's Clockmaker: Richard of Wallingford and the Invention of Time. London & New York: Hambledon Continuum, 2006. Pp. xx + 442, 35 GBP. ISBN-13: 978-1852854515. New edition.

Cosmos: An Illustrated History of Astronomy and Cosmology, 2008. See *supra*, New Books No. 5.

“Silbury Hill: Cone, Sun, and Moon, in Mathematics in the Heavens and on Earth”, in *Festschrift für Menso Folkerts zum 65. Geburtstag, Acta Historica Leopoldina*, 54 (2008), pp. 235-253.

▫ **Jamil RAGEP**

Biographical Encyclopaedia of Astronomers (co-edited with Thomas Hockey *et al.*), New York: Springer, 2007. (Content editor for 157 articles.)

▫ **Sreeramula Rajeswara SARMA**

“Jay Sing” (entry on “Jai Singh”, tr. into Persian) in *Daneshname-ye Jahan-e Eslam: Encyclopaedia of the World of Islam*, vol. 11, Tehran, 2007, pp. 574-578.

“Indian Astronomical Instruments in German Collections,” XXX. *Deutscher Orientalistentag, Freiburg, 24.-28. September 2007. Ausgewählte Vorträge, hrsg. im Auftrag der DMG von Rainer Brunner et al.* Online-Publikation, Februar 2008: <http://orient.ruf.uni-freiburg.de/dotpub/sarma.pdf> ISSN: 18662943.

Astronomical Instruments in the Rampur Raza Library, published by W.H. Siddiqui, Rampur (India): Raza Library, 2003. Pp. 95, with 33 illustrations. Reviewed by S.M.R. Ansari in *Indian J. of History of Science* (New Delhi), Vol. 39 (2004), pp. 121-128[Eds.].

The Archaic and the Exotic: Studies in the History of Indian Astronomical Instruments, Manohar, New Delhi 2008.

▫ **Yunli SHI**

“Nikolaus Smogulecki and Xue Feng zuo’s *TianbuZhenyuan*: Its Production, Publication, and Reception”, in *East Asian Science, Technology and Medicine*, vol. 27 (2008), pp.62-124.

“The *Yuzhi Lixi Kaochengang* in Korea”, in Luís Saraiva & Catherine Jami (eds.), *History of mathematical Sciences. Portugal and East Asia III: The Jesuits, the Padroado and East Asian Science (1552-1773)*, Singapore: World Scientific, 2008, pp. 205-229.

▫ **Nathan SIVIN**

Granting the Seasons. The Chinese Astronomical Reform of 1280, with an Annotated Translation and Study of its Many Dimensions. Sources and Studies in the History of Mathematics and Physical Sciences. Pp. 766. Secaucus, NJ: Springer. Publication scheduled for late October 2008.

This is the first complete translation of a Chinese astronomical treatise, in this case the most sophisticated of the tradition. One chapter is a general orientation on Chinese mathematical astronomy as it bears on this project.

▫ **Anne TIHON**

“Numeracy and Science”, in Elizabeth Jeffreys, John Haldon and Robin Cormack (eds), *Oxford Handbook of Byzantine Studies*, Oxford: Oxford University Press, 2008, pp. 803-819.

PERIODICALS

The contents on astronomy of the last issue of some periodicals are as follows.

▫ ***Suhayl*** (Barcelona), Vol 6 (2006):

English part:

- Boris ROSENFELD, “A Second Supplement to Mathematicians, Astronomers and Other Scholars of Islamic Civilisation and Their Works”, pp.9-80.
- Emilia CALVO, & Roser PUIG, “The Universal Plate Revisited”, pp. 113-158.
- José BELLVER, “Jābir b. Aflah on the Four-Eclipse Method for finding the Lunar period in Anomaly”, pp. 159-217, Arabic Text Edition pp. 217-248.

Reviews:

- J. LIROLA & J.M. PUERTA, *Biblioteca de al-Andalus*, Vol.III & IV, Reviewed by C. ALVAREZ-MILLÁN, pp. 249-251.
- Richard LORCH, *Al-Farghānī, on Astrolabe*, Reviewed by E. CALVO, pp. 251-253.

Arabic section:

- Yūsuf QARQŪR, Introduction to the Geometrical Constructions by Qustā bin Lūqā al-Baʿlbakī, pp.7-80.

For details and past issues visit the Web-site: <http://www.ub.edu/arab/lilbrevs/Suhayl.htm>

▫ ***Archives Internationales d'Histoire des Sciences***, Vol. 57-2, 159 (2007)

This issue is entirely devoted to the memory of René Taton (1915-2004). Some papers deals with the History of Astronomy:

- Suzanne DÉBARBAT, “René Taton et l'histoire de l'astronomie: Rapports avec les astronomes”, pp. 467- 475.
- Michel-Pierre LERNER, “René Taton et les études coperniciennes en France”, pp. 477-486.
- Emmanuel POULLE, “Une recherche suggérée par René Taton: Les tables de Jacobus Dondi”, pp. 487-497.

The next issue will be a memorial to Adolphe P. Youschkevitch.

For complete contents and past issues:

<http://www.brepols.net/catalogue/index.jsp?mpk=20295&art=2203864>

▫ ***The Journal for the History of Astronomy***, Vol. 39 (2008)

The content is available at the following site: <http://www.shpltd.co.uk/jhacont2008.html>

▫ ***Dio (The International Journal of Scientific History)***, Vol. 14 (March 2008)

Editor Dennis Duke <dduke@scs.fsu.edu>

Contents:

- “Eratosthenes: Pharos Truth Behind Alexandria-Aswan Myth”, pp. 3-12.
- “Aristarchos Unbound: Ancient Vision”, pp. 13-32.
- “The Ptolemy Geography’s Secrets”, pp. 33-58.

Issue available at: <http://www.dioi.org/vols/we0.pdf>

▫ **SCIAMVS: Sources and Commentaries in Exact Sciences**: Volume 8, December 2007

Chief editor: Michio Yano (yanom@cc.kyoto-su.ac.jp, yanom@sciamvs.org).

Selected articles:

- Peter J. HUBER and John M. STEELE, “Babylonian Lunar Six Tablets”, pp. 3-36
- Nathan SIDOLI and J. L. BERGGREN, “The Arabic version of Ptolemy’s Planisphere or Flattening the Surface of the Sphere: Text, Translation, Commentary”, pp. 37-140
- Charles BURNETT, Ji-Wei ZHAO and Kurt LAMPE, “The Toledan Regule: A Twelfth-Century Arithmetical Miscellany”, pp. 141-232.

Full contents available at: http://www.sciamvs.org/vol_08.html

▫ **Journal of Astronomical History and Heritage**: Volume 10-2 (2007)

For Contents visit: <http://www.jcu.edu.au/school/mathphys/astronomy/jah2/past10.shtml>

NEWS AND ANNOUNCEMENT

Prizes

▫ **David Hyam DE VORKIN** was awarded the **2008 LeRoy E. Doggett Prize**:

“This prize was given for ‘his seminal work in illuminating the origins and development of modern astrophysics and the origins of the space sciences during the twentieth century.’ The Historical Astronomy Division awards the LeRoy E. Doggett Prize biennially to an individual who has significantly influenced the field of the history of astronomy, either by a recent publication or by a career-long effort.”

Text source: <http://www.aas.org/had/doggett/2008doggett2devorkin.html>

▫ **K. RAMASUBRAMANIAN** was bestowed with the **Award of Maharshi Badarayan Vyas Samman 2008**

“Prof. K. Ramasubramanian of the Department of Humanities and Social Sciences (Indian Institute of Technology, Bombay, India) has been conferred the Award of Maharshi Badarayan Vyas Samman in recognition of his research. The award is given to young scholars of Sanskrit, Pali/Prakrit, Arabic and Persian in the age group of 30 to 40 years, who have made a breakthrough in the interdisciplinary studies involving contribution of these languages or the ancient Indian wisdom, to the process of synergy between modernity and tradition. The award carries a one-time cash award of Indian Rs. 100, 000 along with a *sanad* (certificate) and a shawl, which will be presented by the President of India.”

Maharshi Badarayan Vyas is considered to be an incarnation of Vishnu-god. He was a prolific writer. He is supposed to be the author of staggering voluminous scriptures : the 18 Puranas, the Mahabharata, the Brahmasutra and so on, hence the name Krishna Dvaipayana Vyas. Being a descendent of the Badari family, he is also called Badarayan.

Overview of the Awardee’s Work:

“Prof. Ramasubramanian is one of the authors who prepared the Explanatory Notes of the celebrated work *Ganita-yuktibhasa* (Rationales in Mathematical Astronomy) of Jyeshthadeva (ca. 1530) which brings out the seminal contributions of the Kerala School of astronomers and mathematicians in the field of Mathematical Analysis/Sciences. Their contributions include the discovery of power series expansion of Sine and Cosine functions and the development of infinite series (and fast convergent approximations) for the ratio of the circumference of a circle to its diameter. They also developed new models of planetary motion that gave a correct account of the

heliocentric motion of the interior planets, Mercury and Venus, for the first time in the history of Indian Astronomy. The book *Ganita-yuktibhasha* has already been published by Hindustan Book Agency, New Delhi in two volumes and is being reprinted by Springer. See its short review in this issue.

Besides the above-mentioned, Ramasubramanian has edited the book: *500 Years of Tantrasangraha of Nilakantha*, with M.S. Sriram and M.D. Srinivas. It has been published by Indian Institute of Advanced Study, Shimla.” For a brief account of this work visit the site: <<http://www.iias.org/p-500years.html>>. Prof. Ramasubramanian is a traditionally trained Sanskrit scholar and also holds a doctorate in Theoretical Physics. His investigations of the classical Indian texts in Sanskrit have shed a lot of light on the development of Indian Mathematics and Astronomy during the medieval period, especially the work of the Kerala School during the 15th and 16th centuries.

Source: <http://www.iitb.ac.in/award/facultyaward.html> , information obtained by S.M.R. Ansari.

Events

▫ *Galileo's Telescope. The Instrument that Changed the World*

Beijing Planetarium, China

October 15, 2008 – January 10, 2009

“Galileo’s Telescope has been conceived and produced by the Istituto e Museo di Storia della Scienza in Florence, thanks to the support of the Ministero dell’Istruzione, dell’Università e della Ricerca, with the collaboration of the Istituto Nazionale di Fisica Nucleare, the Istituto Nazionale di Ottica Applicata, the Osservatorio Astrofisico di Arcetri, and the Stazione Sperimentale del Vetro, Murano.

A new section devoted to “The telescope, measurement of time and longitude” has been especially realized for the Beijing venue.

The Beijing exhibition has been made possible thanks to the joint efforts of the Ministero dell’Istruzione, dell’Università e della Ricerca, the Beijing Association for Science and Technology and the Beijing Planetarium as well as the generous sponsorship of Officine Panerai.”

Galileo’s Telescope is on display in Florence as well: Museo di Storia della Scienza, until December 31, 2008.

Source: <http://www.imss.fi.it/news/epechino.html>

▫ *The Medici and Science Instruments and Machines in the Grand-Ducal Collections*

Florence, Museo degli Argenti

May 15, 2008 – January 11, 2009

From May 15, the Museo degli Argenti in the Pitti Palace is hosting the exhibition: *The Medici and Science. Instruments and Machines in the Grand-Ducal Collections*, conceived by the Istituto e Museo di Storia della Scienza and promoted in collaboration with the Soprintendenza per il Patrimonio Artistico, Storico ed Etnoantropologico e per il Polo Museale della città di Firenze) and the Ente Cassa di Risparmio di Firenze.

The exhibition, curated by Filippo Camerota and Mara Miniati, revolves around the prominent role that physical-mathematical disciplines played in Tuscany in the 16th-17th century, particularly from Cosimo I until Ferdinando II. The Medici were great patrons of instrument-makers and natural philosophers in as much as they, more than any other European ruler, were fully aware that scientific knowledge and the technological control of nature conferred stability and prestige on political power. For this reason, along their rich treasure of paintings, sculptures and jewels, the Medici sovereigns formed a notable collection of mathematical instruments. This close relationship between art and science emerges from the beauty and preciousness of many of these instruments, some of which are unique pieces and authentic works of art in themselves.

The Medici and Science highlights the alliance between art, science and political power by combining a broad selection of instruments from the Istituto e Museo di Storia della Scienza with an equally ample selection of paintings, books and manuscripts coming from the institutions of the Polo Museale Fiorentino and from other prestigious Italian institutions.

The exhibition catalogue (I Medici e le scienze. Strumenti e macchine nelle collezioni granducali, € 40,00), edited by Filippo Camerota and Mara Miniati, is published by Giunti Editore, Florence-Milan.

Source: <http://www.imss.fi.it/news/emedici.html>

▫ ***2009 is the International Year of the Astronomy (IYA2009)***

In the year 2009, the world will celebrate the International Year of Astronomy as it commemorates the 400th anniversary of Galileo's use of a telescope to study the skies, and Kepler's publication of *Astronomia Nova*. 2009 is also the anniversary of many other historic events in science, including Huygen's 1659 publication of *Systema Saturnium*. This will be 400th Anniversary of modern astronomy, and 2009 the Year of Astronomy will be an international celebration of numerous astronomical and scientific milestones. Events are still being planned, and you are invited to tell us how you want to celebrate. This page is a product of the U.S. 2009 IYA team, and we want to help you make 2009 a year long celebration to remember.

The IYA2009 Opening Event will be held in Paris, France on 15-16 January 2009.

For further information, see the IYA-USA web page (link below).

Text from : <http://www.astronomy2009.us>

▫ ***Astronomical Diary for 2009***

As part of activities for the International Year of Astronomy, IUCAA* is planning to bring out an *Astronomy Diary* covering the year 2009 and Prof. J. V. Narlikar and Prof. T. Padmanabhan) are leading this effort at IUCAA.

The diary will have one page per week and it will highlight some aspect of astronomy in each of the pages in a colourful and informative manner. The text and the pictures will be at a popular level and the compilers hope to make it both entertaining and educative for the students and other enthusiasts interested in the Astronomy. They will also include monthly starcharts, some tips for amateur astronomers etc. interspersed throughout the year. The diary will be produced in high quality paper with printing only on one side and it will become hopefully a collector's item.

Sample pages are available as pdf-file.

For orders and further information, please contact: Prof. Ranjan Gupta (Secretary, Astronomical Soc. of India): asi@iucaa.ernet.in .

Postal Address: IUCAA, Post Bag 4, Ganeshkhind, Pune-411007, India

Phone: +91-20-25604111 (direct office) FAX: +91-20-25604699

*IUCAA: Inter-University Centre for Astronomy and Astrophysics.

Source: Text adapted from the message of Prof. JV Narlikar/Prof. T Padmanabhan IUCAA):

▫ ***"Astronomy and its instruments before and after Galileo"***

An IAU - INAF, Joint Symposium of Astronomical Observatory of Padova, Italy.

A Joint Symposium of IAU and INAF Sept. 28-Oct.3, 2009, at San Servolo Island, Venice(Italy). It is actually an interdisciplinary conference jointly organized by: International Astronomical Union (IAU), and Astronomical Observatory of Padova(INAF). It is also supported by Scientific Instruments Commission (SIC) of IUHPS.

For programme etc., visit the Web-site: <http://web.oapd.inaf.it/venice2009/index.php>

Contact email address of the symposium: venice2009@oapd.inaf.it

Call for Participation

The organisers: Simone Zaggia (Chair LOC) and Luisa Pigatto (Co-chair SOC) would like to invite all interested colleagues to participate in this meeting. Presentations will include invited talks,

contributed talks and poster papers. Details on submission of the contributed papers, as well as the meeting registration fee will be given in the second announcement. Attendance will be limited to 230 participants with preference given to authors.

Pre-Registration

People interested in participating can make a pre-registration in order to be included in the mailing list for receiving news and announcements when available.

Please, visit our web pages where you can find the online pre-registration form:

http://web.oapd.inaf.it/venice2009/registration_form.php

Effective registration process is expected to start already in September 2008, together with the possibility of submission of a title.

News

▫ ***"Digital Rare Book Collection" at the Vienna University Observatory***

The Vienna University Observatory conserves one of the most important collections of historically significant science books starting from the 15th to the 18th centuries. The Library of the Institute of Astronomy contains 5 books older than 1500, 56 printed before 1600 and a total of 500 books prior to 1800. This is the holding of the Rare Book Collection. There is also a remarkable collection of digitised volumes, "Digital Rare Book Collection", to download in four different versions.

A few titles are listed below:

- PEUERBACH - *Theoricae novae planetarum* (a. 1473)
- REGIOMONTANUS – *Kalendarium* (a. 1476)
- REGIOMONTANUS - *Epytoma in Almagestum Ptolemaei* (a. 1496)
- NICEPHORUS – *Logica* (a. 1498)
- PSEUDO PROCLUS DIADOCHUS – *Sphaera* (a. 1499)

Source: <http://www.univie.ac.at/hwastro>

Information supplied by Raymond Mercier (Cambridge)

▫ ***From the Working Group on the Preservation of Astronomical Heritage (WGPAH)***

The Group was established at the 209th Meeting, January 2007 in Seattle, in response to a report from the Historical Astronomy Division (HAD).

Members: Twelve members nominated by the HAD Executive Committee on the basis of their professional qualifications relating to the preservation of sites, astronomical instruments, and historical documents, and two additional members representing the concerns of active research observatories.

Charge: The Working Group is charged with developing and disseminating procedures, criteria and priorities for identifying, designating, and preserving astronomical structures, instruments, and records so that they continue to be available for astronomical and historical research, for the teaching of astronomy, and for outreach to the general public.

The Working Group may interact with other academic, international, or governmental organizations, as appropriate to advance the preservation of astronomical heritage. Contact address:

James M. Lattis (2008 - 2010) - University of Wisconsin - Madison (Astronomy),
1150 University Avenue, Madison, WI 53706, < lattis@astro.wisc.edu >

Text Reference: <http://members.aas.org/comms/wgpah.cfm>

▫ ***From John Steele***

“I formally accepted an offer from Brown University to take up a position in the History of the Exact Sciences in Antiquity, beginning this autumn. I will be based in the expanding Department of Egyptology and Ancient Western Asian Studies. It will be an honour to try to continue the tradition of the old History of Mathematics Department, and I am looking forward to the challenge of re-establishing the history of ancient science as a teaching and research field at Brown.”

▫ ***From Annette Imhausen***

Annette Imhausen and Tanja Pommerening (Egyptologists and historians of science), are planning an international symposium

"Writings of early scholars: Wissenschaft und Sprache im antiken Mittelmeerraum (Ägypten, Mesopotamien, Griechenland)"

at Johannes Gutenberg University Mainz (27.07.-29.07. 2009)

The focus is the scientific knowledge of cultures of the ancient Mediterranean in different disciplines (astronomy/astrology, mathematics, healing sciences) and the question of the translation (ancient and modern translations of ancient scientific texts).

For information, contact Annette Imhausen: ai226@cam.ac.uk

▫ ***From Walter Cruttendem***

The 5th Annual ***"Conference on Precession and Ancient Knowledge"*** (CPAK) will be held this year at the University of California in San Diego (UCSD).

The scientists, authors and researchers attending will explore the possibility that there was a Golden Age, a period of higher consciousness, in man's distant past — as described in myth and folklore.

For more information go to: www.CPAKonline.com Poster presentations are available to qualified researchers.

We thank all those who contributed to compile this Newsletter by sending us matters. For the next issue, you can continue to send us information: bibliography, events, announcements of colloquium, exhibitions, interesting Web site, etc., by e-mail to anne.tihon@uclouvain.be with copy to laurence.tuerlinckx@uclouvain.be.

COMMISSION ON HISTORY OF ANCIENT AND MEDIEVAL ASTRONOMY (CHAMA)

Proforma for Registration of Membership of the CHAMA

(<http://chama.fltr.ucl.ac.be>)

Please, send it to Anne.Tihon@uclouvain.be, or by airmail addressed to
Prof. Anne Tihon**

Surname: Title: Age (optional):

Other Names: male/female:

Country:

Institution:

e-mail:

Address: Work*:

Home*:

Phone numbers: Work*:

Fax:

Home*:

Research Field:

Recent Bibliography (max. 5 works)***:

Scientific Project:

Any other Information:

Links:

Date:

Place:

Signature (if possible):

*Normally, this information will be displayed on the CHAMA website. If you do not wish that, it will remain confidential. Please mention that specifically.

**Université Catholique de Louvain, Institut orientaliste, Collège Erasme, Place Pascal 1,
B-1348 Louvain-la-Neuve, Belgium.

*** If the space is not sufficient, use a separate sheet. Please give exact bibliographical details.