

Books and Pamphlets

Ancellin, Jacques. *Un homme de science du XIX<sup>e</sup> siècle: l'astronome Emmanuel Liais (1826-1900)*. Coutances, Impr. OCEP, 1985. 204 p. illus., maps, col. plates, ports.

"Extrait du tome LVII des Mémoires de la Société des sciences naturelles et mathématiques de Cherbourg."

Ansari, S. M. Razaullah. *Introduction of modern western astronomy in India during 18-19 centuries*. New Delhi, Dept. of History of Medicine and Science, Institute of History of Medicine and Medical Research, 1985. 81 p.

*Astronomy and astrophysics in the nineteenth century*. Proceedings of the fourth annual meeting on the history of astronomy, Pisa, 11 November 1989. Edited by Edoardo Proverbio. Firenze, 1991. 807-979 p. illus. (Società astronomica italiana. Memorie, v. 61, n. 4, 1990)

Partial contents: Arrighi, G. The Royal Observatory of Marlia (Lucca): the instruments--a proposal.--Monaco, G. Lorenzo Respighi and star scintillation.--Proverbio, E. The production of achromatic objectives in the first half of the nineteenth century: the contribution of Giovanni Battista Amici.--Tucci, P. Amici's reflectors and refractors.--Sutera, S. The nineteen [sic] century--Instruments to observe: the contribution of Italian makers.--Iannaccone, I. The structure of the universe: syncretism and continuity of the Chinese cosmological theories.--Buffoni, L., A. Manara, and P. Tucci. G. V. Schiaparelli and A. Secchi on shooting stars.--Mancuso, S. Ernesto Capocci and astronomical research in Naples around the middle of the nineteenth century.--Masani, A. Helmholtz and the birth of theoretical astrophysics.--Stavinschi, M. Joseph Boscovich in Rumania.

Bhathal, Ragbir S., and Graeme L. White. *Under the Southern Cross: a brief history of astronomy in Australia*. Kenthurst, N.S.W., Kangaroo Press, 1991. 96 p. illus. (part col.), ports.

Brown, Robert Hanbury. *Boffin: a personal story of the early days of radar, radio astronomy and quantum optics*. Bristol, New York, A. Hilger, 1991. 184 p. illus., ports.

Brueton, Diana. *Many moons; the myth and magic, fact and fantasy of our nearest heavenly body*. New York, Prentice Hall Press, 1991. 256 p. illus. (part col.)

Burnett, John E., and Alison D. Morrison-Low. "Vulgar and mechanick": the scientific instrument trade in Ireland, 1650-1921. Edinburgh, National Museum of Scotland; Dublin, Royal Dublin Society, 1989. 166 p. illus., ports. (Royal Dublin Society. Historical studies in Irish science and technology, no. 8)

See particularly "Thomas and Howard Grubb," by John E. Burnett (p. 89-117), which includes a list of the 64 leading instruments built by the Grubbs during the period 1834-1926.

Comes, Mercè. *Ecuatorios andalusíes: Ibn al-Samh, al-Zarqallūh y Abū-l-Salt*. Barcelona, Universitat de Barcelona, Facultat de Filologia, 1991. 264 p. illus. (Anuari de filologia, v. 13. Secció B, Estudis àrabs, no. 1) Includes Arabic t-xt.

Copernicus, Nicolaus. *Das neue Weltbild. Drei Texte: Commentariolus, Briefe gegen Werner, De revolutionibus I*. Im Anhang eine Auswahl aus der Narratio prima des G. J. Rheticus. Übersetzt, herausgegeben und mit einer Einleitung und Anmerkungen versehen von Hans Günter Zekl. Lateinisch-deutsch. Hamburg, F. Meiner, 1990. 254 p. front. (Philosophische Bibliothek, Bd. 300)

Latin and German on facing pages.

Dansk astronomi gennem firehundrede år. Redaktion Claus Thykier. Vaerkets forfattere: Kjell Gyldenkerne, Per Barner Darnell, Claus Thykier, Poul Darnell, Per Friedrichsen. København, Rhodos, 1990. 3 v. (621 p.) illus. (part col.), maps (part col.), ports. (part col.) Summary in English: v. 3, p. 583-589.

Daśabala. *The astronomical works*. [Edited by] David Pingree. Aligarh, Viveka Publications, 1988. 60 p. (Aligarh oriental series, no. 9) Critical edition of verse works on astronomy, in Sanskrit with introductory matter in English.

Di Bono, Mario. *Le sfere omocentriche di Giovan Battista Amico nell'astronomia del Cinquecento, con il testo del "De motibus corporum coelestium..."* Pref. di Carlo Maccagni. Genova, Consiglio nazionale delle ricerche, Centro di studio sulla storia della tecnica presso l'Università degli studi, 1990. 221 p. illus.

Ekschmitt, Werner. *Weltmodelle; griechische Weltbilder von Thales bis Ptolemäus*. Mainz am Rhein, P. von Zabern, 1989. 191 p. illus. (Kulturgeschichte der antiken Welt, Bd. 43)

Fontenelle, Bernard Le Bovier de. *Conversations on the plurality of worlds*. Translation by H. A. Hargreaves. Introd. by Nina Rattner Gelbart. Berkeley, University of California Press, 1990. xl ix, 82 p.

I Guicciardini e le scienze occulte. *L'oroscopo di Francesco Guicciardini, lettere di alchimia, astrologia e cabala a Luigi Guicciardini*. A cura di Raffaella Castagnola; pre messa di Eugenio Garin. Firenze, L. S. Olschki, 1990. 397 p. illus., facsim. (Istituto nazionale di studi sul Rinascimento. Studi e testi, 19)

Hedberg, Björn. *Kometskräck; en studie i folkliga och lärda traditioner*. Uppsala, Etnologiska institutionen vid Uppsala universitet, 1990. 301 p. illus. (Etnolore, 8)

Thesis (doctoral)--Uppsala University, 1990.

English summary: p. 280-286.

"The dissertation contains three major sections: first, there is a chapter which carefully examines the Swedish folklore records on comets; thereafter follow six chapters which examine fear of comets as far back in time as possible; and, finally, the results are summarized and analyzed in two concluding chapters."

Henderson, Janice A. *On the distances between sun, moon and earth according to Ptolemy, Copernicus and Reinhold*. Leiden, New York, E. J. Brill, 1991. xiv, 220 p. illus. (Studia Copernicana, 30. Brill's series, v. 1)

History, lore, and archaeoastronomy. In *Asteroids to quasars; a symposium honouring William Liller*. Edited by Phyllis M. Luger. Cambridge, New York, Cambridge University Press, 1991. p. 255-286. illus., map, port.

Contents: Welther, B. L. Robert Wheeler Willson: his life and legacy.--Gingerich, O. The great mnemonic contest.--Liller, W. Hetu'u Rapanui: the archaeoastronomy of Easter Island.

**The History of the British Astronomical Association.** London, 1989-90. 2 v. illus., ports. (British Astronomical Association, London. Memoirs, v. 42, pt. 1-2)

Contents: v. 1. The first fifty years. 2d ed.--v. 2. The second fifty years.

**The First Fifty Years** was originally published in 1948 as v. 36, pt. 2, of the Association's Memoirs. The present edition is unchanged except for the addition of 50 illustrations and their captions.

**Hodgson, John H.** The heavens above and the earth beneath: a history of the Dominion observatories. pt. 1. To 1846. Toronto, Ont., Geological Survey of Canada, 1989. 193 p. illus., plans, ports. (Geological Survey of Canada. Open file, 1945)

**Horský, Zdeněk, and Dagmar Tenorová.** Soupis tisků předních pražských astronomů 16.-17. století v historických knihovnách ČSR. Ondřejov, Středisko vědeckých informací AsU ČSAV, 1990. 138 p. facsimis. (Scripta astronomica, 5) English summary: p. 119.

**Huygens, Christiaan.** Cosmoteoros; de werelbeschouwer. Vertaling Pieter Rabus; voorzien van een inleiding door H. A. M. Snelders. 4. uitg. Utrecht, Epsilon, 1989. 203, 14 p. illus. (Epsilon uitgaven, 11) Reprint of a translation first published in 1754. Prof. Snelders's essay, "Christiaan Huygens' Kosmoteoros," appears on p. 1-14 at the end of the volume.

**Kelly, John T.** Practical astronomy during the seventeenth century: almanac-makers in America and England. New York, Garland Pub., 1991. 319 p. illus. (Harvard dissertations in the history of science)

**Kepler, Johann.** Manuscripta astronomica (I). Bearb. von Volker Bialas unter Mitwirkung von Friederike Boockmann. München, C. H. Beck'sche Verlagsbuchhandlung, 1988. 591 p. illus., facsim. (His Gesammelte Werke, Bd. 20)

**Leurquin, Régine.** Théodore Méliténiate, "Tribiblos astronomique." Livre I. Amsterdam, J. C. Gieben, 1990. 436 p. illus. (Corpus des astronomes byzantins, 4) Critical matter in French; includes Greek text with French translation.

**Linda Hall Library.** The face of the moon, Galileo to Apollo. An exhibition of rare books and maps, October 13, 1989-February 28, 1990. Exhibition catalog by William B. Ashworth, Jr. Kansas City, Mo., 1989. 45 p. illus.

**López Pifero, José M.** El grabado en la ciencia hispánica. Madrid, Consejo Superior de Investigaciones Científicas, 1987. 1 case. illus. (part col.) The case contains a book (86 p.) and 60 loose leaves of plates. The book provides an introduction and an annotated catalog of the works in which were first published the illustrations reproduced on the plates. Eight of these (no. 1, 2, 4, 5, 6, 13, 23, and 44) relate to the history of astronomy.

**Maffeo, Sabino.** Nove papi, una missione: cento anni della Specola vaticana. Città del Vaticano, Pontificia Academia Scientiarum, Specola vaticana, 1991. 261 p. plates (part col.)

**Mann, William.** The Cape diary and letters of William Mann, astronomer and mountaineer, 1839-1843. Edited by Brian Warner. Cape Town, Friends of the South African Library, 1989. 104 p. facsimis., port.

**Marius, Simon.** Mundus Iovialis; die Welt des Jupiter. Hrsg. und bearb. von Joachim Schlör. Naturwissenschaftlich begleitet und mit einem Nachwort versehen von Alois Wilder. Gunzenhausen, Schrenk-Verlag, 1988. 175 p. illus., facsimis., ports. (Fränkische Geschichte, Bd. 4) Latin text and German translation on facing pages.

**Markowski, Mieczysław.** Astronomica et astrologica Cracoviensia ante annum 1550. Firenze, L. S. Olschki, 1990. xxxv, 377 p. (Istituto nazionale di studi sul Rinascimento. Studi e testi, 20)

**Moreno Corral, Marco A.** Odisea 1874; o, El primer viaje internacional de científicos mexicanos. México, D.F., Secretaría de Educación Pública, Fondo de Cultura Económica, Consejo Nacional de Ciencia y Tecnología, 1986. 142 p. illus. (La Ciencia desde México, 15)

**Naugle, John E.** First among equals: the selection of NASA space science experiments. Washington, DC, National Aeronautics and Space Administration, Office of Management, Scientific and Technical Information Program, 1991. 134 p. (The NASA history series) (NASA SP-4215)

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**Petroni, Angelo M.** I modelli, l'invenzione, e la conferma: saggio su Keplero, la rivoluzione copernicana e la "New philosophy of science." Milano, F. Angeli, 1990. 247 p. illus. (Filosofia e scienza nel Cinquecento e nel Seicento. Studi, 33)

**Physics, cosmology, and astronomy, 1300-1700:** tension and accommodation. Edited by Sabetal Unguru. Dordrecht, Boston, Kluwer Academic Publishers, 1991. 321 p. (Boston studies in the philosophy of science, v. 126)

Contents: Unguru, S. Introduction--pt. 1. Ancient background. Glucker, J. Images of Plato in late antiquity. Wasserstein, A. Hunches that did not come off: some problems in Greek science.--pt. 2. Islamic and Jewish contributions. Freudenthal, G. (Al-)Chemical foundations for cosmological ideas: Ibn Sfnā on the geology of an eternal world. Goldstein, B. R. Levi ben Gerson: on astronomy and physical experiments. Langermann, Y. T. The astronomy of Rabbi Moses Isserles.--pt. 3. Medieval cosmology, natural philosophy, and optics. Grant, E. Celestial incorruptibility in medieval cosmology, 1200-1687. Sylla, E. D. The Oxford calculators and mathematical physics: John Dumbleton's *Summa Logicae et Philosophiae Naturalis*, parts II and III. Unguru, S. Experiment in medieval optics.--pt. 4. Kepler: cosmology, astronomy, and light. Krafft, F. The new celestial physics of Johannes Kepler. Lindberg, D. C. Kepler and the incorporeality of light.--pt. 5. Science, religion, and political power. North, J. D. One truth or more? Demarcation in the universe of discourse. Segre, M. Science at the Tuscan court, 1642-1667.

**Richardson, J. Michael.** Astrological symbolism in Spenser's The shepheardes calendar; the cultural background of a literary text. Lewiston, N.Y., E. Mellen Press, 1989. 563 p. illus. (Studies in Renaissance literature, v. 1)

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Samonow, Elisabeth von. Die Erzeugung des Sichtbaren; die philosophische Begründung naturwissenschaftlicher Wahrheit bei Johannes Kepler. München, W. Fink, 1986. 116 p. (Die Geistesgeschichte und ihre Methoden, Bd. 12)

Scheibe, Kugel, schwarzes Loch; die wissenschaftliche Eroberung des Kosmos. Hrsg. von Uwe Schultz. München, C. H. Beck, 1990. 360 p. illus., ports. Based on the radio program "Und sie begibt sich doch--die wissenschaftliche Eroberung des Kosmos," broadcast by Hessischer Rundfunk.

Contents: Schultz, U. Vortwort: die unantastbare Wahrheit des Weltalls.--Schlosser, W. Sterne und Steine; erste Vermessungen des Himmels. --Spengler, T. Die Häuser des Mondes; Geschichte der chinesischen Astronomie.--Kraupe, T. W. Linien zu den Göttern; Himmelsbilder in Mittel- und Südamerika.--Becker, U. Venus und Sirius; die Anfänge der Astronomie an Euphrat, Tigris und Nil.--Saltzer, W. Vom Chaos zur Ordnung; die Kosmologie der Vorsokratiker.--Krafft, F. Die Zahlen des Kosmos; Platon und die pythagoreische Lehre.--Craemer-Ruegenberg, I. Der Himmel und das Göttliche; die Lehre des Aristoteles.--Kunitzsch, P. Die Erde im Mittelpunkt; Claudius Ptolemäus, König der Astronomen.--King, D. A. Die Sterne weisen nach Mekka; arabische Astronomie im Dienste des Islam.--Flasch, K. Gott jenseits im All; die Kosmologie des Mittelalters.--Nobis, H. M. Der Himmel stürzt ein; Nicolaus Copernicus und die Folgen.--Kayser, R. Die Harmonie der Welt; Johannes Keplers bahnbrechende Entdeckungen.--Fölsing, A. Und er bewegt uns noch; Galileo Galilei, Wegbereiter der modernen Wissenschaft.--Schramm, M. Die Gesetze der Himmelsmechanik; Newtons Principia--Geometrie der Impulse und Gravitation.--Lüst, R. Kosmische Vagabunden; die Kometen und Planetoiden.--Schmeidler, F. Der mathematische Himmel; die Forschungen der Himmelsmechaniker.--Roth, G. D. Das neue Bild der Milchstrasse; Sir William Herschel, der Astronom des Königs.--Herrman, J. Mit dem Massstab ins All; die Auslotung des Weltraums durch Friedrich Wilhelm Bessel.--Herrmann, D. B. Auf dem Weg zur Astrophysik; der grosse Umbruch in der astronomischen Forschung.--Wittmann, A. Feuer des Lebens; vom Wunsch, die Sonne verstehen zu können.--Voigt, H.-H. Das zerlegte Licht; Methoden und Ziele der Astrophysik.--Duschl, W. J. Leuchtende Sterne; Astrophysik im 20. Jahrhundert.--Osten-Sacken, P. von der. Das helle Band am Himmel; Entstehung und Bau der Milchstrasse.--Feitzinger, J. V. Von Galaxie zu Galaxie; die Unendlichkeit des Universums.--Kippenhahn, R. Der Anfang des Alls; kosmologisches Wissen der Moderne.--Beck, R. Fenster zum Weltraum; radioastronomische Sternstunden.--Hahn, H.-M. Der offene Himmel; Raumsonden erkunden das All.--Schultz, U., and J. Trumper. Letzte Fragen: Gespräch mit einem Astrophysiker.

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Partial contents: Saha, A. K. Seminar on Astronomy and Mathematics in Ancient and Medieval India--a dialogue between traditional scholars and university trained scientists: opening remarks.--Bandyopadhyay, A. Astronomical works of Samanta Chandrasekhar.--Sarkar, R. Astronomical shortcomings in ancient Indian treatises.--Chakravarty, A. K. Astronomical and calendrical evidence in early Indian inscriptions.--Sarma, K. V. Observational astronomy in medieval Kerala.--Hariharan, S. Declination in Indian astronomy and the approach of Kerala astronomers.--Abraham, G. Apollonius' theorem for stationary points.--Sen, S. N. Approach of traditional scholars and modern scientists in the evaluation of the procedures by half in computing the Śīgra and Manda corrections for planetary

positions.--Ohashi, Y. Varāhamihara's orthographic projection..... an interpretation of the Pañcasiddhāntikā XIV. 5-11.--Khan, M. S. Teaching of mathematics and astronomy in educational institutions of medieval India.--Roy, M. Astronomy and alchemy in India, a correlated study.

Shklovskii, Iosif S. Five billion vodka bottles to the moon. Tales of a Soviet scientist. Translated and adapted by Mary Fleming Zirin and Harold Zirin. Introd. by Herbert Friedman. New York, W. W. Norton, 1991. 268 p. illus., ports.

Staatlicher mathematisch-physikalischer Salon, Dresden. Astronomische Instrumente; Katalog. Bearbeitung: Helmut Schramm. Dresden [1987?] 60 p. illus. (part col.) Describes 50 instruments, 33 of which are illustrated.

Talkenberger, Heike. Sintflut: Prophetie und Zeitgeschehen in Texten und Holzschnitten astrologischer Flugschriften, 1488-1528. Tübingen, Niemeyer, 1990. 570 p. facsimis. (Studien und Texte zur Sozialgeschichte der Literatur, Bd. 26)

Tichy, Franz. Die geordnete Welt indianischer Völker; ein Beispiel von Raumordnung und Zeitordnung im vorkolumbischen Mexiko. Mit einem Beitrag von Johanna Broda. Stuttgart, Steiner, 1991. 228 p. illus. (Das Mexiko-Projekt der Deutschen Forschungsgemeinschaft, 21)

Utting, Muriel. Cooke's Perth observatory. Bickley, W.A., Perth Observatory, 1989. 22 p. illus., ports.

Weidemann, Volker. Theatrum Cometicum. Hamburg und Kiel im Zeichen des Kometen von 1664 und 1665. Hamburg, Joachim Jungius-Gesellschaft der Wissenschaften in Kommission beim Verlag Vandenhoeck & Ruprecht, Göttingen, 1987. 39 p. illus., port. (Berichte aus den Sitzungen der Joachim Jungius-Gesellschaft der Wissenschaften, Hamburg. Jahrg. 5, Heft 3)

#### Articles

Abalakin, Viktor K. Aleksandr Aleksandrovich Mikhailov, k 100-letiū so dnia rozhdeniya. In füblei nauki. [vyp. 1]; 1988. Kiev, Naukova dumka, 1989. p. 98-102.

Abalakin, Viktor K., and Evgenij A. Grebenikov. Leonard Eller i razvitiye astronomii v Rossii. In Razvitiye idej Leonarda Ellera i sovremennoj nauki; sbornik statej. Pod red. N. N. Bogolubova, G. K. Mikhailova, A. P. ūshkevicha. Moskva, "Nauka," 1988. p. 237-253. illus.

Abhyankar, Krishna D. My encounter with astronomy. In Bharatiya Jyotir-Vijyan Parishad. Bulletin of the Astronomical Society of India, v. 18, Sept./Dec. 1990: 109-117.

Abry, Joseph H. Auguste: la Balance et le Capricorne. In Revue des études latines. t. 66; 1988. Paris, Société d'édition "Les Belles lettres," 1989. p. 103-121. illus.

Considers why the emperor Augustus, born Sept. 23, chose Capricorn instead of Libra as his symbol.

Abry, Joseph H. Fatalisme astral et "bonne étoile" dans les inscriptions latines de la Gaule (Narbonnaise et Lyonnaise). In la Langue des inscriptions latines de la Gaule. Actes de la Table ronde tenue au C.E.R.G.R. les 6 et 7 octobre 1988 (Université Lyon III). Lyon, En dépôt à la diffusion de Boccard, Paris, 1989. (Collection du Centre d'études romaines et gallo-romaines, nouv. sér., N-7) p. 87-97.

**Abstracts of the papers presented at the history of astronomy sessions of the Astronomical Society of the Pacific summer meeting at Laramie, Wyoming, 25-27 June 1991.** In *Astronomical Society of the Pacific. Publications*, v. 103, Oct. 1991: 1117-1118.

**Contents:** Brashear, R. S. Feeling the heat: the early years of infrared astronomy.--Duerbeck, H. W., and W. C. Seitter. Steps toward the velocity-distance relation of extragalactic nebulae.--Osterbrock, D. E. Lick Observatory Sir Galahad: Arthur B. Wyse.

**Al Samman, Tarif, and Otto Mazal.** *Astronomie.* In their *Die arabische Welt und Europa. Ausstellung der Handschriften- und Inkunabelsammlung der Österreichischen Nationalbibliothek. Handbuch und Katalog.* Prunksaal, 20. Mai-16. Oktober 1988. Graz, Akademische Druck- und Verlagsanstalt, 1988. p. 255-311. plates (part col.)

**Contents:** Mazal, O. Griechische Astronomie.--Al Samman, T. Arabische Astronomie.--Mazal, O. Arabische Astronomie in Europa.--Mazal, O. Abendländische Astronomie des Mittelalters.--Mazal, O. Griechische, arabische und abendländische Astrologie.

Each essay is followed by catalog descriptions of the exhibited items (no. 155-198). The plates (no. 12-15, color; no. 22-30, black and white) are bound at the end of the volume.

**Alam, Shah Manzoor.** Creation of universe and some astronomical phenomena: Qur'anic concepts and scientific theories. *HAMDARD ISLAMICUS*, v. 13, winter 1990: 3-15.

**Allen, David A.** Desert astronomers. In *Yearbook of astronomy*. 1992. Edited by Patrick Moore. New York, W. W. Norton, 1991. p. 122-131. illus.

Based on a visit to several sites in the American Southwest.

**Ananthasubramaniam, C. K.** The Madras Observatory, 1792-1931. In *Royal Astronomical Society of Canada. Journal*, v. 85, Apr. 1991: 97-106. illus.

**Antaramián H., Eduardo.** La contribución de los michoacanos al conocimiento de la astronomía. In *Simposium Sobre Ciencia y Tecnología en Michoacán, Museo Regional Michoacano, Morelia, México, 1986. Ciencia y tecnología en Morelia, Michoacán, México, Universidad Michoacana de San Nicolás Hidalgo, Coordinación de la Investigación Científica, Instituto de Investigaciones Históricas*, 1990. p. 199-210. illus.

**Atwell, Rossie.** Notebook of W. F. Denning. In *British Astronomical Association, London. Journal*, v. 101, June 1991: 191.

**Aujac, Germaine.** Stoicisme et hypothèse géocentrique. In *Aufstieg und Niedergang der römischen Welt (ANRW). Geschichte und Kultur Roms im Spiegel der neueren Forschung. T. 2. Principat. Bd. 36. Philosophie, Wissenschaften, Technik. 3. Teilbd. Philosophie (Stoizismus)*. Hrsg. von Wolfgang Haase. Berlin, New York, W. de Gruyter, 1989. p. 1430-1453.

**Bacchelli, Franco.** Sulla cosmologia di Basilio Sabazio e Scipione Ceppi. In *Rinascimento; rivista dell'Istituto nazionale di studi sul Rinascimento. 2. ser.* v. 30. Firenze, L. S. Olschki, 1990. p. 107-152.

**Bara, Joëlle F.** Les termes ΤΟΜΩΣ/locus et ΚΑΗΡΟΣ/sors dans le corpus des astrologues et notamment chez Vettius Valens d'Antioche. In *Documents pour l'histoire du vocabulaire scientifique*, no 9. Paris, Institut national de la langue française, 1989. p. 15-19.

**Baum, Richard, and William Sheehan.** Percival Lowell & Venus: cartwheels, canals and chimeras. *Astronomy now*, v. 5, Mar. 1991: 33-36. illus. (part col.)

**Baumgartner, Frederic J.** Starry messengers: supernovas, comets and sunspots heralded the scientific revolution. *Sciences*, v. 32, Jan./Feb. 1992: 38-43. col. illus.

**Bean, Michael.** The 1866 Leonids. In *British Astronomical Association, London. Journal*, v. 101, Oct. 1991: 211.

Letter to the editor quoting Sir Robert Ball's account and a report published in the Yarmouth Independent of Nov. 17, 1866.

**Bedding, James.** Playground for the stars: the Jantar Mantar, astronomical observatories in India. *New scientist*, v. 131, Aug. 31, 1991: 49. col. illus.

**Beech, Martin.** More speculations on ancient Sirius. *Astronomy now*, v. 5, Jan. 1991: 9. illus.

**Beech, Martin.** The stationary radiant debate revisited. In *Royal Astronomical Society. Quarterly journal*, v. 32, Sept. 1991: 245-264. illus.

**Bennett, J. A.** The challenge of practical mathematics. In *Science, culture and popular belief in Renaissance Europe*. Edited by Stephen Pumphrey, Paolo L. Rossi and Maurice Slawinski. Manchester, New York, Manchester University Press; New York, distributed exclusively in the USA by St. Martin's Press, 1991. p. 176-190.

**Bertoloni Meli, Domenico.** Kepler and Leibniz. In *Internationaler Leibniz-Kongress, 5th, Hannover, 1988. Leibniz: Tradition und Aktualität. Vorträge. Redaktion: Ingrid Marchlewitz*. Hannover, Gottfried-Wilhelm-Leibniz-Gesellschaft, Niedersächsische Landesbibliothek, 1988. p. 65. Abstract only.

**Bertoloni Meli, Domenico.** Public claims, private worries: Newton's Principia and Leibniz's theory of planetary motion. *Studies in history and philosophy of science*, v. 22, Sept. 1991: 415-449. illus., facsim.

**Bhathal, Rabir S., and Ian Sansom.** Sydney Observatory: scientific institution, museum and national heritage. In *Royal Society of New South Wales, Sydney. Journal and proceedings*, v. 121, pt. 3, 1988: 67-75.

**Bhattacharyya, J. C.** Progress of astrophysics in India. In *Glimpses of science in India*. Editor, U. S. Srivastava. New Delhi, Malhotra Pub. House, 1991. p. 471-486.

**Bieder, Hermann.** Tschechische astrologische Anmerkungen in einem deutschen Arzneibuch des 16. Jahrhunderts. In *Wiener slavistisches Jahrbuch*, Bd. 34. Wien, Verlag der Österreichischen Akademie der Wissenschaften, 1988. p. 163-176.

**Biermann, Kurt R.** Genie ohne Chance: Thomas Clausen, Joseph von Fraunhofer's designierter Nachfolger. *Kultur & Technik*, 14. Jahrg., Nr. 3, 1991: 42-45. col. illus., facsim., port.

**Blaauw, Adriaan.** ESO's early history, 1953-1975. X-XI. In *European Southern Observatory. Messenger*, no. 63, Mar. 1991: 25-34; no. 64, June: 9-20. illus. (part col.), ports. (part col.)

**Contents:** X. The Schmidt telescope: design, construction, the ESO-SRC agreement and the onset of survey projects. XI. Policy, payment and a bit of politics.

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