

Sydney IAU General Assembly: The C41/ICHA History of Astronomy Program

1. OVERVIEW

Table 1: The History of Astronomy program at the Sydney General Assembly

Day	Session	Stream 1 (Venue: Skyline 1)	Stream 2 (Venue: Merino)
Monday 21 July	1	SM1: Applied Historical Astronomy	SM2: The Early Development of Australian Radio Astronomy
	2	SM1: Applied Historical Astronomy	SM2: The Early Development of Australian Radio Astronomy
	3	WG1: Astronomical Archives	SM2: The Early Development of Australian Radio Astronomy
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Tuesday 22 July	1	WG3: Historical Instruments	SM5: Pioneering Observations in Radio Astronomy
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	3	WG4: Transits of Venus	SM3: Recent Research
	4	WG4: Transits of Venus	SM3: Recent Research
Wednesday 23 July	1		BM1: C41/ICHA AGM
	2	WG2: Astronomical Chronology	SM4: Ethnoastronomy & Archaeoastronomy

2. DETAILS OF THE VARIOUS SCIENCE (SM) AND WORKING GROUP (WG) MEETINGS

SM1: Applied Historical Astronomy (July 21, 2003)

Organizing Committee: Liu Ciyuan (China), Nha Il-Seong (Korea), John Steele (Canada), and Richard Stephenson (UK, Chair).

Contact: Professor F. Richard Stephenson, Department of Physics, University of Durham, South Road, Durham DH1 3LE, UK (f.r.stephenson@durham.ac.uk).

Program

Session 1 (Chair: Richard Stephenson)

9.00–9.30 Steele, J.M. (Canada) “Applied historical astronomy: an historical perspective.” (Keynote Paper)

9.30–9.45 Fujiwara, T. (Japan) “Searching for long-term variability of stars among historical records.”

9.45–10.00 Frew, D., & Orchiston, W. (Australia) “Nineteenth century Australian observations of Eta Carinae: international controversy and astrophysical implications.”

10.00–10.15 Green, D.A. (UK), & Orchiston, W. (Australia) “In search of *Mahutonga*: a possible supernova recorded in Maori astronomical traditions.”

10.15–10.30 Allen, C., & Poveda, A. (Mexico) “The importance of old measures for small star cluster kinematics.”

Session 2 (Chair: David Green)

- 11.00–11.15 Stephenson, F.R. (UK) “Ancient eclipses and Earth's rotation: an update.”
- 11.15–11.30 Kawabata, K.-A., Tanikawa, K., & Soma, M. (Japan) “Time variation of the moment of inertia of the Earth derived from Chinese and Japanese records of ancient solar eclipses.”
- 11.30–11.45 Soma, M., Tanikawa, K., Kawabata, K.-A. (Japan) “Tidal term of the lunar longitude in the past 2,700 years derived from Chinese and Japanese records of ancient solar eclipses.”
- 11.45–12.00 Lee, E.-H. (Korea), Ahn, Y.-S. (Korea), & Chen, K.-Y. (USA) “Solar cycle derived from the historical records of sunspots and aurorae.”
- 12.00–12.15 Green, D.W.E. (USA) “Historical astrometric and photometric data on comets and supernovae.”
- 12.15–12.30 Xu, Z.-T. (China) “Astronomy on oracle bone inscriptions: recent progress.”

Poster Paper:

- Strom, R. (Netherlands) “On the origin of picturesque descriptions in old Chinese astronomical records.”

SM2: The Early Development of Australian Radio Astronomy (July 21, 2003; Commissions 40 & 41 Joint Meeting)

Organising Committee: Miller Goss (USA), Dave Jauncey (Australia), Ken Kellermann (USA), Wayne Orchiston (Australia, Co-Chair), and Woody Sullivan (USA, Co-Chair).
Contact Dr Wayne Orchiston, Australia Telescope National Facility, PO Box 76, Epping, NSW 2121, Australia (Wayne.Orchiston@csiro.au)

Program

Session 1 (Chair: Ken Kellermann)

- 9.00–9.30 Sullivan, W.T. (USA) “A half-century of Australian radio astronomy, 1939–1988: From wartime radar to the Australia Telescope.” (Keynote Paper)
- 9.30–10.00 Minnett, H. (Australia) “Fifty years in radio science and its applications.” (Keynote Paper)
- 10.00–10.20 Murray, J. (Australia) “The Penrith and Dapto solar radio spectrographs.”
- 10.20–10.30 Movie presentation: “Hush Hush.”

Session 2 (Chair: Woody Sullivan)

- 11.00–11.30 Robinson, B. (Australia) “Joe Pawsey and his influence on the development of Australian radio astronomy.” (Keynote Paper)
- 11.30–11.50 Slee, O.B. (Australia) “Early Australian measurements of radio source structure.”
- 11.50–12.10 Robinson, B. (Australia) “Early observations of the H-line in Sydney.”
- 12.10–12.30 Murray, J. (Australia) “Development of the Murraybank multi-channel H-line receiver.”

Session 3 (Chair: Miller Goss)

- 2.00–2.30 McLean, D. (Australia) “The solar radio astronomy program at Culgoora: an historical overview.” (Keynote Paper)
- 2.30–2.50 Morimoto, M. (Japan) “The Culgoora Radioheliograph and Radiospectrograph.”
- 2.50–3.10 Suzuki, S. (Australia) “The Culgoora Spectropolarimeter.”
- 3.10–3.30 Duncan, R.A. (Australia) “History of the determination of Jupiter's rotation period.”

Session 4 (Chair: Dave Jauncey)

- 4.00–4.30 McAdam, B. (Australia) “From Molonglo Cross to MOST: a scientific appraisal.” (Keynote Paper)

- 4.30–4.50 Batchelor, B., & Sinclair, M. (Australia) “Receiver development for the Parkes Radio Telescope.”
- 4.50–5.10 Milne, D., & Whiteoak, J. (Australia) “The impact of Frank Gardner on the first years of research with the Parkes Radio Telescope.”
- 5.10–5.30 Finlay, E. (Australia) “The 30 MHz array at Fleurs.”

Poster Paper:

Robinson, B. (Australia) “URSI (Sydney) 1952: the first international meeting of radio astronomers.”

SM3: Recent Research (July 22, 2003)

Organising Committee: Wolfgang Dick (Germany), Rajesh Kochhar (India), Tsuko Nakamura (Japan, Chair), and Brian Warner (South Africa).

Contact: Dr Tsuko Nakamura, The National Observatory of Japan, 2-21-1 Osawa, Mitaka, Tokyo 181, Japan (tsuko@cc.nao.ac.jp).

Program

Session 3 (Chair: Tsuko Nakamura)

- 2.00–2.30 Chubey, M.S., Abalakin, V.K., Dadaev, A.N., Kopylov, I.M., Lavrinovich, K.K., Moskovchenko, N.Ya., Ikhsanova, V.N., Tolbin, S.V., Kaptsyug, V.B., Nevskaya, N.I., Kuznetsova, A.B. (Russia), and Schmeidler, F., & Lekhtman, A.M. (Germany) “Astronomers of the Struve family: scientific contribution, way and heritage.” (Keynote Paper)
- 2.30–2.50 Graham, J.A. (USA) “Before the fire: Mount Stromlo Observatory in the mid-twentieth century.”
- 2.50–3.10 Williams, T.R. (USA) “The amateurization of astronomy in Britain and the United States.”
- 3.10–3.30 Evans, J. (USA) “The astrologer’s apparatus: a picture of an astronomical speciality in Greek Egypt.”

Session 4 (Chair: Brian Warner)

- 4.00–4.30 Milone, E.F., & Winmill, B.D. (Canada) “On the astronomical implications of the monuments on Nemrud Dagħ.” (Keynote Paper)
- 4.30–4.50 Hirai, M., & Nishimura, N. (Japan) “Re-analysis of the first Japanese star catalogue appearing in ‘Tenmon Keito’.”
- 4.50–5.10 Lu, D. (China) “The characters of leap years in the calendars of the Qing Dynasty (A.D. 1644-1911).”
- 5.10–5.30 Jochi, S. (Taiwan) “A brief study of the ‘Taiwan Civil Calendar’.”

Poster Papers:

Orchiston, W. (Australia) “A one-man Greenwich of the south? The remarkable observational record of John Tebbutt.”

Souchay, J. (France) “Contribution of D’Alembert’s work to the theory of the Earth’s rotation.”

SM4: Ethnoastronomy & Archaeoastronomy (July 23, 2003)

Organising Committee: Clive Ruggles (U.K., Chair), and Keith Snedegar (USA).

Contact: Professor Clive Ruggles, School of Archaeological Studies, University of Leicester, University Road, Leicester LE1 7RH, UK (rug@le.ac.uk).

Program

Session 2 (Chair: Keith Snedegar)

- 11.00–11.30 Ruggles, C. (U.K.), & Snedegar, K. (USA) “General introduction and key issues, illustrated by an Hawaiian case study.” (Keynote Paper)

- 11.30–11.45 Fairall, A.P., & Matomela, T. (South Africa) “Xhosa astronomical knowledge.”
- 11.45–12.00 Holbrook, J. (USA) “Introduction to African cultural astronomy.”
- 12.00–12.15 Kusumowardani, A. (Indonesia) “A study in ethno-astronomy in Central Java: an application of traditional wisdom for cultivating land.”
- 12.15–12.30 Stoev, A., Muglova, P., Fol, V., & Stoeva, M. (Bulgaria) “Observational prognostic and cult astronomical practices in the territory of rock-cut monuments.”

Poster Papers:

- Hoskin, M. (U.K.) “The orientation of European prehistoric tombs and temples.”
- McCluskey, S.C. (UK) “The nature of medieval astronomical concepts and the orientation of churches.”
- Muglova, P., Stoev, A., Stoeva, M., Videnov, B., & Stoyanova, M. (Bulgaria) “Sunrises extreme points used in the sighting equipment of the Harman kaya rock-cut monument near the village of Dolna Chobanka, Bulgaria.”
- Nguyen, M.T., & Nguyen, T.V. (Vietnam) “The bamboo stick calendar of the Muong people of Vietnam.”
- Simonia, I. (Georgia) “Ancient Georgian metallic cosmograms.”

SM5: Pioneering Observations in Radio Astronomy (July 22, 2003)

Organising Committee: Wayne Orchiston (Australia, Chair), and Bruce Slee (Australia).
 Contact: Dr Wayne Orchiston, Australia Telescope National Facility, PO Box 76, Epping, NSW 2121, Australia (Wayne.Orchiston@csiro.au)

Program

Session 1 (Chair: Bruce Slee)

- 9.00–9.30 Kellermann, K. (USA) “Grote Reber: maverick scientist and father of radio astronomy.” (Keynote Paper)
- 9.30–9.50 Radhakrishnan, V. (India) “Olof Rydbeck and early radio astronomy in Sweden.”
- 9.50–10.10 Sullivan, W. (USA) “Wurzburg dishes: German WWII radar antennas vital to early radio astronomy in every country but Germany (and Australia).”
- 10.10–10.30 Orchiston, W. (Australia) “Dr Elizabeth Alexander: first female radio astronomer?”

Session 2 (Chair: Wayne Orchiston)

- 11.00–11.30 Goss, M. (USA) “Ruby Payne-Scott (1912-1981): Australian pioneer in radiophysics and radio astronomy.” (Keynote Paper)
- 11.30–11.50 Kardashev, N.S., & Matveenko, L.I. (Russia) “The early development of USSR radio astronomy.”
- 11.50–12.10 Goss, M. (USA), & Slee, B. (Australia) “The discoveries of Sagittarius A in New South Wales in 1951 and Sagittarius A* in West Virginia in 1974.”
- 12.10–12.30 Morimoto, M. (Japan) “Early Japanese mm-wave observations and their impact on international radio astronomy”

Poster Papers:

- Débarbat, S. (France) “Fifty years of radio astronomy in France.”
- Jauncey, D.L., Lovell, J.E.J. (Australia), Koyama, Y. (Japan), Fey, A.L. (USA), Edwards, P.G. (Japan), Aller, M.F., Aller, H.D., Klein, M.J. (USA), & the GAVRT Team “Interstellar scintillation observations: back to the future.”
- Orchiston, W., Chapman, J., Slee, B., Sharp, P. & Parsons, B. (Australia) “Interpretation of the historic Dover Heights field station: an ATNF heritage project.”

WG1: Astronomical Archives (July 21, 2003)

Organising Committee: Suzanne Débarbat (France, Chair), Wolfgang Dick (Germany), and Wayne Orchiston (Australia).

Contact: Dr. Suzanne Débarbat, Observatoire de Paris, 61 av de l'Observatoire, 75014 Paris, France (Suzanne.Debarbat@obspm.fr).

Program

Session 3 (Chair: Suzanne Debarbat)

- 2.00–2.30 Chapman, J., Orchiston, W., & Norris, B. (Australia) “The ATNF Historic Photographic Archive: development of the digital image database.” (Keynote Paper)
2.30–2.50 Corbin, B.G. (USA) “Archives in the U.S. Naval Observatory—recent projects.”
2.50–3.10 Perkins, A. (UK) “The Royal Greenwich Observatory archives in Cambridge: an overview.”
3.10–3.30 Orchiston, W. (Australia). “Highlighting the history of nineteenth century Australian astronomy: The Tebbutt Collection in the Mitchell Library, Sydney.”

Session 4 (Chair: Richard Stephenson)

- 4.00–4.30 Nakamura, T. (Japan) “The Japanese Astronomical Archives Project: a progress report.” (Keynote Paper)
4.30–4.50 Débarbat, S., & Bobis, L. (France) “Alidade Project—work in progress.”
4.50–5.10 Pigatto, L., Salmaso, M., & Zanini, V. (Italy) “The Lorenzoni-Tacchini correspondence in the Padova Observatory archives. The “true” history of Italian astronomy in the second half of the nineteenth century.”
5.10–5.30 Stavinschi, M., & Mioc, V. (Romania) “Storing astronomical information in the Romanian territory.”

Poster Paper:

Moran, K., & Brück, M.T. (UK) “The Crawford Collection at the Royal Observatory Edinburgh.”

Simonia, I. (Georgia) “Old Georgian astronomical manuscripts.”

WG2: Astronomical Chronology (July 23, 2003)

Organising Committee: Adriaan Blaauw (Netherlands), Alex Gurshtein (USA/Russia, Chair), Teije de Jong (Netherlands), and Brian Warner (South Africa).

Contact Professor Gurshtein, Mesa State College, PO Box 2647, Grand Junction, CO 81502, USA (agurshtein@hotmail.com).

Program

Session 2 (Chair: Alexander Gurshtein)

- 11.00–11.30 Jong, T. de (Netherlands) “Milestones in the early development of Mesopotamian astronomy.”
11.30–12.00 Perdrix, J.L. (Australia) “Top ten of the second millenium.”
12.00–12.30 Gurshtein, A.A. (USA/Russia) “Project CHRONICA.”

WG3: Historical Instruments (July 22, 2003)

Organising Committee: John Briggs (USA), Nha Il-Seong (Korea, Chair), and Wayne Orchiston (Australia).

Contact: Dr Wayne Orchiston, Anglo-Australian Observatory, PO Box 296, Epping, NSW 2121, Australia (wo@aaoepp.aao.gov.au)

Program

Session 1 (Chair: Luisa Pigatto)

- 9.00–9.30 Lomb, N. (Australia) “Historically significant astronomical instruments at Sydney Observatory.” (Keynote Paper)
9.30–9.50 Orchiston, W. (Australia) “History of the ‘Catts Telescope’: a nineteenth century 20-inch Grubb reflector.”
9.50–10.10 Kaptüg, V.B., Chubey, M.S., Vereshchagin, S.A., & Sokolov, Y.A. (Russia) “On recovery and research work at the Russian Struve station in Gogland.”
10.10–10.30 Smith, J.R. (UK) “Meridian arc measurements over the centuries.”

Session 2 (Chair: Fred Watson)

- 11.00–11.30 Johnson, K. (UK) “A glimpse at the astronomy heritage of the Science Museum, London.” (Keynote Paper)
11.30–11.50 Satterthwaite, G.E. (UK) “Sir George Airy’s instruments for positional astronomy.”
11.50–12.10 Pigatto, L., Tomasella, L., & Zanini, V. (Italy) “Telescopes at the Astronomical Observatory of Padova, Italy. From the last refractor to the first reflector.”
12.10–12.30 Nakamura, T. (Japan) “Early historic telescopes preserved in Japan.”

Poster Papers:

- Shankland, P.D. (USA), & Orchiston, W. (Australia) “The historic Clark refractor at the U.S. Naval Academy.”
Watson, F. (Australia) “James Gregory and the invention of the Cassegrain telescope.”
Watson, F., McCowage, C., & Cannon, R. (Australia) “The Anglo-Australian Telescope after three decades: an historical perspective.”

WG4: Transits of Venus (22 July, 2003)

Organising Committee: Steven Dick (USA), Alex Gurshtein (USA/Russia), Rajesh Kochhar (India), Wayne Orchiston (Australia, Chair), and Luisa Pigatto (Italy).

Contact: Dr Wayne Orchiston, Anglo-Australian Observatory, PO Box 296, Epping, NSW 2121, Australia (wo@aaoepp.aao.gov.au)

Program

Session 3 (Chair: Steven Dick)

- 2.00–2.30 Fioravanti, R., Monaco, G., Pigatto, L., & Zanini, V. (Italy) “Transits of Venus observed in Italy in 1761 and 1882.” (Keynote Paper)
2.30–2.50 Duerbeck, H.W. (Germany) “The German Venus transit expeditions of 1874 and 1882—organisation, stations, methods, results.”
2.50–3.10 Orchiston, W. (Australia) “The nineteenth century transits of Venus: an Australian and New Zealand overview.”
3.10–3.30 Edwards, P. (Japan) “Charles Todd’s observations of the transits of Venus.”

Session 4 (Chair: Wayne Orchiston)

- 4.00–4.30 Dick, S.J. (USA) “The American transit of Venus expeditions of 1874 and 1882.” (Keynote Paper)
4.30–4.50 Sterken, C., & Duerbeck, H.W. (Belgium) “The Belgian Venus transit expedition of 1882 to Texas and Santiago—a reappraisal.”
4.50–5.10 Mourao, R.R. de F. (Brazil) “The Brazilian contributions to the transits of Venus.”
5.10–5.30 Kochhar, R. (India) “The role of transits of Venus in the development of modern astronomy in India.”
5.30–5.40 Misch, T., & Sheehan, W. (USA) “The 1882 transit of Venus reanimated.” (Short movie presentation: world premiere!)

Poster Papers:

Botez, E. (Romania) “The northeast expedition for the observation of the transit of Venus on June 3rd 1769, and its leader.”

Brück, M. (UK) “Lord Lindsay's transit of Venus expedition to Mauritius in 1874.”

Gent, R. van, Zandstra, A., Staubermann, K., & Hooijmaijers, H. (Netherlands) “The Dutch transit of Venus expeditions to Réunion (1874) and Curaçao (1882).”