

INTERNATIONAL ASTRONOMICAL UNION COMMISSION 26

(DOUBLE STARS)

INFORMATION CIRCULAR No. 163 (OCTOBER 2007)

NEW ORBITS

ADS α 2000 δ	Name n	P a	T i	e ω	Ω (2000) Last ob.	2007 2008	Author(s)
450 00321-0511	A 111 AB 16.8382	21 ^y 38 0 ^{''} 172	1947.17 150°0	0.020 18°7	104°5 1994.7083	156°7 0 ^{''} 156 139.5 0.161	BRENDLEY & HARTKOPF
504 00366+5609	A 914 0.7709	467. 0.468	1905.32 118.2	0.107 291.9	35.3 2005.034	24.2 0.436 23.8 0.435	LING
865 01036+6341	MLR 87 6.4320	55.97 0.238	2020.45 145.1	0.513 246.4	139.7 2003.9517	29.0 0.240 24.4 0.233	BRENDLEY & MASON
1538 01559+0151	STF 186 2.1723	165.72 0.986	1892.28 72.4	0.726 40.2	219.7 2006.9180	65.0 0.906 65.6 0.888	BRENDLEY & MASON
3032 04093-0756	A 469 2.8830	124.87 2.435	1968.61 65.5	0.885 277.0	236.8 1996.8984	320.3 1.723 321.4 1.736	BRENDLEY & MASON
- 04340+1510	CHR 17 25.8455	13.93 0.150	1995.87 45.4	0.600 297.9	125.3 2001.7531	290.7 0.168 304.7 0.135	CVETKOVIC
3389 04430+5712	A 1014 4.8109	74.83 0.244	1969.67 13.0	0.465 78.8	111.9 1999.8859	10.2 0.349 12.3 0.348	BRENDLEY & HARTKOPF
- 06290+2013	BTZ 1Aa 19.1992	18.75 0.081	1992.57 72.9	0.297 228.4	120.9 1997.1366	265.0 0.040 281.9 0.053	CVETKOVIC
5625 06575+0253	A 2681 1.7280	208.33 0.273	1938.47 119.4	0.793 339.1	118.2 1997.2000	329.9 0.442 329.6 0.445	BRENDLEY & MASON
6796 08254+3723	HU 856 4.4804	80.35 0.201	1949.90 36.2	0.589 263.6	185.5 2004.2017	299.7 0.231 302.0 0.228	BRENDLEY & HARTKOPF
7555 09525-0806	AC 5 AB 4.6261	77.82 0.397	1957.65 141.1	0.736 303.3	194.7 2006.3199	53.1 0.585 51.9 0.582	BRENDLEY & HARTKOPF

NEW ORBITS (continuation)

ADS α 2000 δ	Name n	P a	T i	e ω	Ω (2000) Last ob.	2007 2008	Author(s)
7952 10520+1606	A 2373 3.5907	100.26 0.172	1980.77 135.5	0.816 101.6	130.3 1993.9260	227.7 0.188 226.5 0.191	BRENDLEY & HARTKOPF
8231 11363+2747	STF 1555 AB 0.3930	916. 1.935	2024.45 85.7	0.664 26.8	150.0 2005.357	148.8 0.699 149.0 0.698	DOCOBO & LING
9019 13461+0507	STF 1781 1.3762	261.6 0.998	1975.93 42.1	0.638 68.9	0.5 2006.32	187.3 0.867 188.3 0.882	ALZNER
9343 14411+1344	STF 1865 2.9273	122.98 0.892	1898.50 125.0	0.985 249.4	5.9 2007.39	296.2 0.609 295.6 0.584	ALZNER
9343 14411+1344	STF 1865 2.8745	125.24 0.825	1898.58 126.0	0.980 61.8	176.5 2006.448	296.9 0.65 296.3 0.63	SCARDIA et al. (*)
9909 16044-1122	STF 1998 AB 7.8431	45.90 0.654	1997.22 34.5	0.744 163.8	25.3 2006.427	347.3 0.793 350.0 0.841	DOCOBO & LING
- 16341+4226	LAB 4 24.5734	14.65 0.113	1975.44 101.2	0.029 94.3	194.6 1995.4421	20.3 0.099 15.1 0.112	BRENDLEY & HARTKOPF
10188 16439+4329	D 15 2.9988	120.05 0.975	1895.02 118.2	0.418 149.7	145.6 2007.54	52.9 0.312 40.2 0.311	ALZNER
10340 17036+6948	A 1146 2.6906	133.81 0.411	2024.05 102.0	0.055 80.3	117.6 2004.2017	110.8 0.346 110.0 0.336	BRENDLEY & MASON
10916 17575+1058	BU 1299 AB 1.5809	227.7 0.410	1957.09 58.2	0.712 126.0	170.0 1999.7251	93.3 0.288 350.0 0.841	DOCOBO & LING
14238 20450+1244	BU 64 AB 0.1407	2559.04 2.677	1951.41 75.1	0.805 138.6	159.3 2001.7311	352.5 0.658 352.8 0.657	BRENDLEY & HARTKOPF
- 21000+4004	KUI 103 12.2158	29.47 0.614	2007.41 19.5	0.759 99.2	164.3 1999.690	211.8 0.169 330.0 0.197	DOCOBO & LING
16131 22385+0218	HO 479 1.9938	180.56 0.724	2010.00 119.5	0.506 75.4	95.5 1998.6630	60.8 0.258 53.4 0.233	BRENDLEY & MASON
16365 22552-0459	BU 178 3.7313	96.48 0.481	1933.83 85.7	0.643 328.3	142.9 2001.8728	322.8 0.632 323.0 0.618	BRENDLEY & MASON

NEW ORBITS (continuation)

ADS α 2000 δ	Name n	P a	T i	e ω	Ω (2000) Last ob.	2007 2008	Author(s)
16373	HU 987	396.08	1917.63	0.415	247.2	80.1 1.060	BRENDLEY
22557+1547	0.9089	1.034	119.4	28.1	2006.5890	79.7 1.069	& HARTKOPF
16428	STT 483	249.1	2021.76	0.391	23.4	355.9 0.468	ALZNER
22592+1144	1.4452	0.710	25.6	19.3	2006.770	358.7 0.464	

(*) SCARDIA, PRIEUR, PANSECCHI & ARGYLE

PIERRE BACCHUS (1923-2007)

An astronomer's life mainly devoted to double star astronomy

Pierre BACCHUS was born the 10th of July 1923 at Mézières (Ardennes), presently called Charleville-Mézières in France near the Belgian border. He very soon showed a great interest for astronomy. During his school year 1941-1942, while studying at *Lycée Saint-Louis* in Paris, one evening with two other students, he used a small astronomical telescope of his own to observe the satellites of Jupiter in a gymnasium of the lycée.

At the entrance examinations of both the *Ecole Normale Supérieure* and *Ecole Polytechnique*, he was rated first for the written assignments and was admitted with a prominent rank in both schools.

He easily cleared his examinations step by step and at the summer 1946, Bacchus brilliantly passed the "*agrégation de physique*". The subject of his thesis on the "sodium" of the nocturnal and crepuscular skies had been proposed by Alfred KASTLER. After a short stay in southern France, he went to astrometry on the advice of André DANJON and moved to the Observatoire de Strasbourg. There, he conceived very artful ocular equipment which, based on rotating spirals, permitted to measure simultaneously the angular separation and the position angle of a binary star. Unfortunately, the atmospheric turbulence blurs the images, whereas the considered equipment requires a perfect aiming on the star.

BACCHUS concluded that his instrument was thus not usable on the Earth surface. Around 1964, with Pierre LACROUTE, he had the idea to go to space for doing astrometry with a very high precision. The critical problem then became that of the quality of the catalogues. Moreover, the catalogues of the northern and southern hemispheres do not join up well because they were independently realized.

This idea gave rise to the conception of the Hipparcos satellite, essentially due to P. LACROUTE, but the ideas of P. BACCHUS were underlying. He was actively involved in the optical design of the satellite; his proposal to transfer of the classical corrections of the Schmidt lens to the complex mirror remains the most original one.

Concerning the visual double stars, he studied their observability conditions by Hipparcos and, from 1982 to 1990, he actively participated to the working group having in charge the double star data needed for the preparation of the Hipparcos Input Catalogue. At the end of the year 1985, he therefore started a verification project of the relative positions of binaries that might be observed by the satellite. He identified and measured systems on Schmidt photographic plates taken at the European Southern Observatory (ESO) and of which a copy was available at the Royal Observatory (Belgium) where he weekly went to collaborate with the team J. Dommagnet/O. Nys. These data were needed for the Catalogue of the Components of Double and Multiple stars (CCDM) of J. Dommagnet, coordinator of the double star working group, and his collaborator O. Nys.

In 1961, Bacchus left Strasbourg for Lille where he was successor to Vladimir Kourganoff as professor of astronomy at the University and head of the laboratory of astronomy until his retirement in 1986.

A computer expert impassionate for the computer languages, in particular the Algol language, he was also creator and director of the "*Laboratoire de calcul et d'informatique fondamentale de l'Université de Lille*".

In 1973, the *Conseil International de la Langue Française* launched the project of a "*Vocabulaire d'Astronomie*". A working group of European astronomers was created and Pierre BACCHUS was chosen for conducting its work. He supervised and realized the manuscript. Therefore he devised and implemented software which enabled to justify the text on the right side.

Pierre Bacchus was very much involved in the history of astronomy and was a member of the "*Commission des cadrans solaires*" of SAF (Société Astronomique de France) some years after its foundation, Pierre Bacchus was one of the king-bolts of a team who published a voluminous work on the mottos of sundials.

At the meeting of the *Commission des Etoiles Doubles* of the SAF at Lille in august 1984, Frédéric Honnart invited Pierre Bacchus to become a member of this commission as a scientific councilor.

He proposed to its members to contribute to his verification project of 1985 of relative positions of the components of double stars and in 1986 and 1987, advised Pierre Durand in preparing various missions for this purpose at the observatories of Haute-Provence, Nice and Pic du Midi. Pierre Bacchus helped to the development of the double image micrometer conceived by Bernard Lyot, by investigating the birefringence of the spar plate, which is its fundamental optical component.

He actively participated to the meetings of the Commission which profited by his experience as a physicist, an astronomer and a mathematician. In particular, for modeling the spreading of the stellar images in the illumination map of the field of a visual double star, he suggested, to replace an empirical formula due to Otto Franz by a more representative and simpler one.

Till just before his death on May 28th, Pierre Bacchus actively participated to the working group on "radial velocities", raised up by Jean Dommagnet a few years ago, with the aim to investigate the space orientation of the orbital planes of the orbital binaries, by the removal of the ambiguity on the direction of their ascending nodes. In the winter 2006-

2007, he developed software in C-language of the type “data base steering” for collecting the useful observations to the program “radial velocities”.

When he participated to seminars or meetings, his comments were always given with ease, acumen, an acute sense of the progression in his statements, generally without notes. His friend’s amateur astronomers and his students unanimously recognize his great teaching qualities.

The *Commission des Etoiles Doubles* has lost a kind and particularly shrewd counselor, who brought very much during more than two decennaries, more particularly by the relevance of his remarks and commentaries on numerous talks given during the meetings.

One shall keep for a long time the memory of Pierre Bacchus, a man good and generous, endowed by a prodigious capacity of assimilation and of inventing, charming in his singularity.

Free translation by J. Dommaget and E. Soulié of the paper “*Hommage à Pierre BACCCHUS*” written by Jean Dommaget, Pierre Durand, Jean-Claude Pecker, Denis Savoie and Edgar Soulié. (*l’Astronomie*, vol.121, p 466, 2007).

NOTE

Dr. Paul Couteau, Honorary Astronomer of the Observatoire de la Côte d’Azur (Nice site) and past President of the IAU Commission 26 (1967- 1970), has received the “Prix Janssen 2007”. This is the award of highest distinction granted by the Scientific Committee of the Société Astronomique de France (SAF) honoring an astronomical career of exception.

The Janssen Prize 2007 was handed to Paul Couteau by Audouin Dollfus, Honorary Astronomer at the Observatoire de Paris (Meudon site), a specialist of planetay surfaces and the discoverer of Saturn’s satellite Janus. The ceremony was held at the Observatoire Camille Flammarion located at Juvisy-su-Orge (Essonne, France) on Saturday 02 June 2007

Edgar Soulié
President of SAF Double Stars Commission

The deadline for contributions to Information Circular No. 164 is:

February 15th 2008

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