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OBSERVATIONS OF COMETS AT THE KLET OBSERVATORY
IN THE YEAR 1969

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A list of precise positions of comets obtained at the Klet Observatory since the beginning of the year 1969 is presented.

The Klet Observatory programme of photoelectric observations of comets was extended by precise position measurements of all comets accessible to the telescopes of the Observatory. The coordinates of the Observatory are $\lambda = 14^{\circ}17'17''.2$ E. Gr., $\varphi = +48^{\circ}51'46''.2$, and were derived from the Laplace point which is less than 200 m from the Observatory dome. The altitude of the Observatory above sea level is 1,070 m.

The positions of comets were obtained by means of the Maksutov camera 40/50/103 cm with exposures from several tens of seconds to tens of minutes depending on the apparent brightness of the central part of cometary head. To avoid any errors in identification of faint comets or stars' images, plates are simultaneously exposed at the primary focus of the reflector 100/395 cm. Both telescopes are placed on the same mounting and pointed by the Zeiss refractor with the E type objective 25/305 cm. Photographic material ORWO/NP-27 or ZU-2 was used. The rectangular coordinates were measured on the Zeiss coordinate comparator (Komess) of the Štefánik Observatory, Prague-Petřín.

Each image of the comet's photometric nucleus was measured ten times, reference stars were measured five times each. Reference stars were chosen from the Smithsonian Astrophysical Observatory and AGK 2 Star Catalogues.

The comet's equatorial coordinates were derived by the method of dependences for 5 - 7 stars according to Sekanina /1/ and all polygons inside which the comet was situated were used. As the final position arithmetic means from about 30 values were taken, the inner mean error being ± 0.3 . The computations were carried out on the MINSK 22 (Centre for Numerical Mathematics, Charles University) or on the MSP 2 (College of Agriculture, České Budějovice) computers.

The author wishes to express his thanks to all who helped in realizing this programme, especially to the members of the staff of the Observatory in České Budějovice, Mrs. R. Petrovičová and Mrs. E. Klojdová, for their active help in all tasks.

Reference

/1/ Sekanina Z., BAC 14, 183 (1963).

COMET THOMAS (1968j)

Plate No.	1969 UT	(1950.0)	(1950.0)	Observer
146	Jan. 13.96097	4 ^h 28 ^m 26. ^s 85	+81°06'57".1	Petrovičová
147	16.02899	4 27 12.72	+80 56 04.7	"
155	21.89919	4 26 30.74	+80 21 09.8	Mrkos
157	Feb. 21.91139	5 11 40.96	+76 09 18.7	Petrovičová
158	Mar. 8.88233	5 47 48.37	+73 36 06.3	"
159	9.89630	5 50 22.16	+73 24 58.8	Mrkos
161	10.89641	5 52 53.90	+73 13 51.7	"
164	May 10.97828	8 17 25.41	+59 45 01.2	"
167	11.87348	8 19 14.67	+59 31 55.7	"
172	12.87878	8 21 18.50	+59 17 08.6	"
181	20.97709	8 37 28.97	+57 17 00.1	"

Reference Stars Numbers

146	SAOSC	80140	80134	81148	81151	81157	80143
147	SAOSC	80140	80134	80136	80143	80146	
155	SAOSC	80137	80138	80144	79145		
157	SAOSC	75217	75218	75221	76190	AGK 2	+76°212
158	SAOSC	73307	73308	73301	73297	73296	
	AGK 2	+73°155					
159	SAOSC	73302	73301	73299	73307	73308	
161	SAOSC	73302	73301	73307	73308	AGK 2	+73°155
	AGK 2	+73°158					
164	SAOSC	26778	26765	14505	26822	26793	
	AGK 2	+60°632					
167	SAOSC	26793	26778	14505	26822	26838	26854
172	SAOSC	26793	26822	26838	26854	26850	
181	SAOSC	26926	26963	26976	26980	AGK 2	+56°717

PERIODIC COMET FAYE (1969a)

Plate No.	1969 UT	(1950.0)	(1950.0)	Observer
208	July 16.03557	1 ^h 47 ^m 15. ^s 42	+15°11'44".2	Mrkos
215	17.05106	1 49 38.59	+15 14.42.2	"
225	27.05073	2 13 41.39	+16 46 28.2	Petrovičová
248	Aug. 9.08242	2 45 48.14	+18 12 40.0	Mrkos
253	10.07593	2 48 16.92	+18 17 56.4	"
258	11.08212	2 50 46.50	+18 22 58.8	"
264	12.08708	2 53 17.55	+18 27 46.5	"
279	Sept. 7.00225	3 57 01.98	+19 07 01.2	"
287	9.04697	4 01 50.82	+19 02 32.9	"
296	10.04722	4 04 10.28	+18 59 54.9	"
299	11.04749	4 06 29.55	+18 57 02.4	"
310	12.02465	4 08 44.38	+18 53 50.3	"
333	14.08093	4 13 24.80	+18 46 26.8	"
339	Oct. 5.93485	4 57 10.77	+16 17 55.2	"
344	6.93844	4 58 51.27	+16 08 19.4	"
350	9.06016	5 02 16.24	+15 47 20.9	"
356	13.12568	5 08 21.32	+15 04 44.8	"
364	13.95065	5 09 31.18	+14 55 44.1	Petrovičová
365	15.12770	5 11 06.83	+14 42 43.2	Mrkos
372	15.93602	5 12 11.44	+14 33 38.0	Petrovičová
376	17.97264	5 14 45.86	+14 10 23.5	"
383	Nov. 6.93486	5 30 24.58	+10 06 33.0	Mrkos
391	15.90382	5 31 42.20	+ 8 22 10.9	"
393	16.90906	5 31 39.07	+ 8 11 18.2	"
400	29.88818	5 28 07.18	+ 6 13 13.5	Petrovičová
401	Dec. 2.06405	5 27 07.59	+ 5 58 23.2	Mrkos

Reference Stars Numbers

208	SAOSC	92655	92661	92645	92621	92636	92663
215	SAOSC	92674	92678	92661	92645	92663	
225	SAOSC	92866	92867	92850	92845	92859	
248	SAOSC	93118	93116	93106	93126	93153	
253	SAOSC	93116	93106	93126	93153	93167	
258	SAOSC	93167	93154	93153	93184	93199	
264	SAOSC	93167	93184	93199	93215	93211	93190
279	SAOSC	93725	93680	93678	93684	93721	93739
287	SAOSC	93763	93788	93796	93739	93725	93744
296	SAOSC	93788	93796	93794	93739	93744	93759
299	SAOSC	93796	93763	93753	93759	93785	93814
310	SAOSC	93788	93796	93801	93825	93822	93814
333	SAOSC	93834	93825	93833	93849	93873	93842
339	SAOSC	94276	94265	94236	94232	94220	94275
344	SAOSC	94265	94298	94275	94232	AGK 2	+16 ^o 430
	AGK 2	+16 ^o 425					
350	SAOSC	94330	94326	94301	94276	94265	94302
356	SAOSC	94373	94387	94388	94362	94346	94344
364	SAOSC	94373	94367	94387	94412	94417	94382
365	SAOSC	94417	94412	94387	94382	94429	94434
372	SAOSC	94434	94417	94412	94387	94382	94429
376	SAOSC	94434	94429	94441	94447	94468	94458
383	SAOSC	112884	94603	94612	94645	94574	112923
391	SAOSC	112871	112880	112927	112963	112967	112887
393	SAOSC	112871	112880	112927	112963	112967	112887
400	SAOSC	112811	112773	112827	112866	112879	112860
401	SAOSC	112843	112773	112788	112860	112879	

COMET KOHOUTEK (1969b)

Plate No.	1969 UT	(1950.0)	(1950.0)	Observer
227	Aug. 1.87372	19 ^h 28 ^m 05. ^s 33	+28°05'41.6	Mrkos
230	2.91248	19 26 07.57	+28 13 09.2	"
232	3.88513	19 24 17.52	+28 19 48.5	"
234	5.84862	19 20 35.78	+28 32 14.5	"
245	8.93850	19 14 47.87	+28 49 15.5	"
250	9.95405	19 12 54.21	+28 54 07.8	Petrovičová
254	10.87720	19 11 11.31	+28 58 18.3	Mrkos
260	11.90759	19 09 17.03	+29 02 38.5	Petrovičová
265	13.92307	19 05 35.22	+29 10 04.1	Mrkos
267	15.83817	19 02 07.56	+29 15 56.6	"
272	16.80600	19 00 19.38	+29 18 32.1	"
273	Sept. 5.87848	18 29 05.15	+29 15 47.8	"
275	6.79981	18 27 54.23	+29 13 43.2	"
281	7.80088	18 26 39.88	+29 11 12.8	"
283	8.80495	18 25 26.07	+29 08 37.8	"
291	9.81806	18 24 13.92	+29 05 52.8	"
304	11.80858	18 21 57.76	+29 00 09.4	"
326	13.79726	18 19 49.48	+28 53 58.2	"
340	Oct. 6.78462	18 04 03.23	+27 33 02.9	"
345	8.77545	18 03 25.50	+27 26 40.1	"
355	12.75520	18 02 29.98	+27 14 48.0	Petrovičová
359	13.74787	18 02 20.15	+27 12 05.5	Mrkos
370	15.75858	18 02 04.93	+27 06 53.7	Petrovičová
380	Nov. 5.74618	18 05 11.56	+26 44 17.7	Mrkos
381	6.77687	18 05 35.51	+26 44 59.9	"
386	15.71753	18 09 57.27	+26 59 45.9	"
392	16.72955	18 10 32.86	+27 02 27.0	"
399	29.77082	18 19 46.21	+27 58 31.2	"

Reference Stars Numbers

227	SAOSC	87268	87260	87313	87310	87311	
230	SAOSC	87237	87229	87250	87268	87305	87260
232	SAOSC	87204	87166	87150	87229	87241	87237
234	SAOSC	87119	87106	87078	87139	87150	87166
		87174					
245	SAOSC	87030	87004	86999	86998	87059	
250	SAOSC	86998	86999	86951	86954	86975	
254	SAOSC	86951	86954	86941	86936	86944	
260	SAOSC	86954	86951	86876	86873	86877	86892
265	SAOSC	86827	86798	86806	86863	86877	86857
267	SAOSC	86792	86793	86760	86735	86712	86744
272	SAOSC	86721	86712	86709	86744	86760	86793
273	SAOSC	86114	86135	86184	86199	86192	86163
275	SAOSC	86114	86096	86103	86135	86184	86163
281	SAOSC	86114	86105	86096	86071	86103	86135
283	SAOSC	86114	86096	86088	86040	86071	86103
291	SAOSC	86096	86088	86011	86040	86071	86114
304	SAOSC	86011	85990	85972	85963	85981	86052
326	SAOSC	85963	85942	85940	85972	85900	86011
340	SAOSC	85690	85704	85751	85756	85755	85707
345	SAOSC	85690	85704	85751	85756	85755	85707
355	SAOSC	85690	85704	85739	85755	85696	85682
359	SAOSC	85690	85704	85739	85755	85696	85682
370	SAOSC	85682	85696	85707	85713	85704	85690
380	SAOSC	85748	85733	85696	85707	85771	85804
381	SAOSC	85748	85733	85696	85707	85771	85804
386	SAOSC	85804	85785	85817	85868	85846	85837
392	SAOSC	85804	85785	85817	85868	85846	85837
399	SAOSC	85948	85924	85963	86020	85989	85952

COMET FUJIKAWA (1969d)

Plate No.	1969 UT	(1950.0)	(1950.0)	Observer
288	Sept. 9.09905	8 ^h 04 ^m 22 ^s .32	+14° 34' 24".7	Mrkos
301	11.10477	8 16 02.72	+13 55 09.2	"
312	12.10538	8 21 53.88	+13 34 35.3	"
323	13.10565	8 27 46.16	+13 13 25.0	"
335	14.10488	8 33 38.61	+12 51 38.9	"
353	Oct. 9.16499	10 58 30.30	+ 1 46 25.8	"
358	13.16977	11 20 07.32	- 0 03 51.3	"
367	15.16589	11 30 39.95	- 0 57 29.8	"

Reference Stars Numbers

288	SAOSC	97559	97543	97573	97597	97609	
	AGK 2	+14° 8' 77"					
301	SAOSC	97714	97600	97722	97756	97761	97752
312	SAOSC	97810	97771	97761	97766	97752	97826
323	SAOSC	97866	97850	97848	97853	97890	97897
335	SAOSC	97938	97977	97991	97989	97951	97890
353	SAOSC	118632	118639	118625	118608	118599	118598
		118627					
358	SAOSC	138148	138159	118812	118817	118825	118852
		138201					
367	SAOSC	138263	138252	138249	138256	138311	138306

PERIODIC COMET HONDA-MRKOS-PAJDUŠÁKOVÁ (1969e)

Plate No.	1969 UT	(1950.0)	(1950.0)	Observer
262	Aug. 12.01697	3 ^h 36 ^m 27. ^s 60	+69°10'01".2	Mrkos
289	Sept. 9.11242	9 07 42.52	+25 17 53.7	"
303	11.13116	9 13 56.62	+23 04 50.6	"
314	12.12914	9 16 59.86	+22 02 07.4	"
325	13.13169	9 20 03.01	+21 01 06.8	"
337	14.13301	9 23 06.23	+20 01 49.9	"
352	Oct. 9.15810	10 45 22.02	+ 1 50 17.9	"
357	13.15432	10 58 25.36	- 0 15 04.9	"
366	15.15517	11 04 48.01	- 1 14 01.7	"

Reference Stars Numbers

262	AGK 2	+69°165	+69°164	+68°189	+69°169	
		+69°168	+68°194			
289	SAOSC	80683	80703	80709	80633	80641 80649
303	SAOSC	80715	80731	80744	80773	80747
314	SAOSC	80747	80754	80774	80786	80773 80734
325	SAOSC	80772	80764	80787	80796	80700
	AGK 2	+21°1037				
337	SAOSC	80804	98547	98567	80842	80834 80700
352	SAOSC	118509	118512	118515	118501	118468
357	SAOSC	118620	118629	137963	137939	137904 118586
366	SAOSC	138001	138022	138015	138000	137980 137967

COMET TAGO-SATO-KOSAKA (1969g)

Plate No.	1969 UT	(1950.0)	(1950.0)	Observer
369	Oct. 15.74331	16 ^h 24 ^m 02 ^s .67	- 4°53'10".5	Mrkos
373	16.73601	16 24 51.75	- 5 22 53.7	Petrovičová
375	17.74451	16 25 43.14	- 5 53 05.6	Mrkos
377	18.73462	16 26 34.79	- 6 23 01.6	"
378	19.74156	16 27 28.75	- 6 53 24.6	"

Reference Stars Numbers

369	SAOSC	141162	141174	141208	141199	141196	141165
373	SAOSC	141196	141182	141162	141167	141165	141190
375	SAOSC	141165	141166	141205	141198	141196	141167
377	SAOSC	141205	141190	141165	141166	141169	141223
378	SAOSC	141218	141230	141233	141205	141189	141168

PERIODIC COMET ČURJUMOV-GERASIMENKO (1969h)

Plate No.	1969 UT	(1950.0)	(1950.0)	Observer
384	Nov. 7.06819	10 ^h 11 ^m 39 ^s .05	+18°07'50".9	Mrkos
	7.08208	10 11 41.12	+18 07 44.8	"
398	17.18375	10 34 07.47	+16 54 38.4	"

Reference Stars Numbers

384	SAOSC	99021	98999	98975	98989	99002	99023
		99032					
398	SAOSC	99201	99228	99239	99235	99204	99189

PERIODIC COMET COMAS-SOLÁ (1968g)

Plate No.	1969 UT	(1950.0)	(1950.0)	Observer
385	Nov. 7.12792	9 ^h 48 ^m 31 ^s .15	+24°26'01".0	Mrkos
	7.14181	9 48 33.03	+24 26 00.8	"
397	17.17263	10 12 28.60	+24 03 01.3	"

Reference Stars Numbers

385	SAOSC	81043	81027	81040	81051	81082	81103
397	SAOSC	81228	81224	81223	81262	81275	81260