



Ephemeriden für Sternfreunde

von Karl-Heinz Bücke

Saturn

Januar 2019 (0^h UT)

Tag	α	δ	Δ	φ	m_V	$\varnothing_{\text{Ä}}$	\varnothing_P	R- \varnothing_g	R- \varnothing_k	D_s	D_e
1	18:49	-22.5	11.06	0.1	0.7	15.0"	13.7"	33.9"	14.6"	25.4	25.5
6	18:52	-22.4	11.06	-0.3	0.7	15.0"	13.7"	33.9"	14.5"	25.4	25.4
11	18:54	-22.4	11.05	-0.8	0.6	15.0"	13.7"	34.0"	14.5"	25.4	25.2
16	18:57	-22.3	11.04	-1.2	0.6	15.0"	13.7"	34.0"	14.4"	25.3	25.1
21	18:59	-22.3	11.02	-1.6	0.6	15.0"	13.7"	34.1"	14.4"	25.3	25.0
26	19:02	-22.2	10.99	-2.0	0.6	15.1"	13.7"	34.2"	14.4"	25.3	24.9
31	19:04	-22.2	10.95	-2.4	0.6	15.1"	13.8"	34.3"	14.4"	25.3	24.8

Februar 2019 (0^h UT)

Tag	α	δ	Δ	φ	m_V	$\varnothing_{\text{Ä}}$	\varnothing_P	R- \varnothing_g	R- \varnothing_k	D_s	D_e
1	19:05	-22.2	10.95	-2.5	0.6	15.1"	13.8"	34.3"	14.4"	25.3	24.8
6	19:07	-22.1	10.91	-2.9	0.5	15.2"	13.8"	34.4"	14.4"	25.2	24.6
11	19:09	-22.0	10.86	-3.3	0.5	15.2"	13.9"	34.6"	14.3"	25.2	24.5
16	19:11	-22.0	10.81	-3.6	0.5	15.3"	14.0"	34.7"	14.4"	25.2	24.4
21	19:13	-21.9	10.75	-4.0	0.5	15.4"	14.0"	34.9"	14.4"	25.2	24.3
26	19:15	-21.9	10.69	-4.3	0.4	15.5"	14.1"	35.1"	14.4"	25.1	24.2

März 2019 (0^h UT)

Tag	α	δ	Δ	φ	m_V	$\varnothing_{\text{Ä}}$	\varnothing_P	R- \varnothing_g	R- \varnothing_k	D_s	D_e
1	19:17	-21.8	10.65	-4.5	0.4	15.5"	14.2"	35.2"	14.4"	25.1	24.1
6	19:18	-21.8	10.58	-4.7	0.4	15.6"	14.2"	35.5"	14.4"	25.1	24.0
11	19:20	-21.7	10.51	-5.0	0.4	15.7"	14.3"	35.7"	14.5"	25.1	23.9
16	19:22	-21.7	10.44	-5.2	0.4	15.9"	14.4"	36.0"	14.5"	25.0	23.9
21	19:23	-21.6	10.36	-5.4	0.3	16.0"	14.5"	36.2"	14.6"	25.0	23.8
26	19:24	-21.6	10.28	-5.5	0.3	16.1"	14.7"	36.5"	14.7"	25.0	23.7
31	19:25	-21.6	10.20	-5.6	0.3	16.2"	14.8"	36.8"	14.8"	25.0	23.6

April 2019 (0^h UT)

Tag	α	δ	Δ	φ	m_V	$\varnothing_{\text{Ä}}$	\varnothing_P	R- \varnothing_g	R- \varnothing_k	D_s	D_e
1	19:25	-21.6	10.18	-5.6	0.3	16.3"	14.8"	36.9"	14.8"	25.0	23.6
6	19:26	-21.5	10.10	-5.7	0.3	16.4"	14.9"	37.2"	14.9"	24.9	23.6
11	19:27	-21.5	10.02	-5.7	0.2	16.5"	15.0"	37.5"	15.0"	24.9	23.5
16	19:28	-21.5	9.93	-5.7	0.2	16.7"	15.2"	37.8"	15.1"	24.9	23.5
21	19:28	-21.5	9.85	-5.6	0.2	16.8"	15.3"	38.1"	15.2"	24.9	23.5
26	19:28	-21.5	9.77	-5.5	0.2	16.9"	15.4"	38.4"	15.3"	24.8	23.5

Mai 2019 (0^h UT)

Tag	α	δ	Δ	φ	m_V	$\varnothing_{\dot{A}}$	\varnothing_P	R- \varnothing_g	R- \varnothing_k	D_s	D_e
1	19:28	-21.5	9.69	-5.4	0.2	17.1"	15.5"	38.7"	15.4"	24.8	23.5
6	19:28	-21.5	9.61	-5.2	0.2	17.2"	15.7"	39.1"	15.6"	24.8	23.5
11	19:28	-21.5	9.54	-5.0	0.2	17.4"	15.8"	39.4"	15.7"	24.7	23.5
16	19:28	-21.5	9.47	-4.7	0.2	17.5"	15.9"	39.7"	15.8"	24.7	23.5
21	19:27	-21.6	9.40	-4.4	0.2	17.6"	16.0"	39.9"	16.0"	24.7	23.6
26	19:26	-21.6	9.34	-4.1	0.2	17.7"	16.1"	40.2"	16.1"	24.7	23.6
31	19:25	-21.6	9.28	-3.8	0.2	17.8"	16.2"	40.5"	16.3"	24.6	23.7

Juni 2019 (0^h UT)

Tag	α	δ	Δ	φ	m_V	$\varnothing_{\dot{A}}$	\varnothing_P	R- \varnothing_g	R- \varnothing_k	D_s	D_e
1	19:25	-21.6	9.27	-3.7	0.2	17.9"	16.3"	40.5"	16.3"	24.6	23.7
6	19:24	-21.7	9.22	-3.3	0.2	17.9"	16.3"	40.7"	16.4"	24.6	23.8
11	19:23	-21.7	9.17	-2.8	0.2	18.0"	16.4"	40.9"	16.5"	24.6	23.9
16	19:21	-21.8	9.14	-2.4	0.2	18.1"	16.5"	41.1"	16.7"	24.5	23.9
21	19:20	-21.8	9.10	-1.9	0.2	18.2"	16.6"	41.2"	16.8"	24.5	24.0
26	19:19	-21.9	9.08	-1.4	0.2	18.2"	16.6"	41.3"	16.9"	24.5	24.1

Juli 2019 (0^h UT)

Tag	α	δ	Δ	φ	m_V	$\varnothing_{\dot{A}}$	\varnothing_P	R- \varnothing_g	R- \varnothing_k	D_s	D_e
1	19:17	-21.9	9.06	-0.9	0.2	18.3"	16.6"	41.4"	17.0"	24.5	24.2
6	19:16	-22.0	9.05	-0.4	0.2	18.3"	16.7"	41.5"	17.1"	24.4	24.3
11	19:14	-22.0	9.05	0.1	0.3	18.3"	16.7"	41.5"	17.1"	24.4	24.4
16	19:12	-22.1	9.06	0.6	0.3	18.3"	16.7"	41.4"	17.2"	24.4	24.5
21	19:11	-22.1	9.07	1.2	0.3	18.2"	16.6"	41.4"	17.2"	24.3	24.6
26	19:09	-22.2	9.09	1.7	0.3	18.2"	16.6"	41.3"	17.2"	24.3	24.7
31	19:08	-22.2	9.12	2.1	0.4	18.1"	16.6"	41.2"	17.2"	24.3	24.8

August 2019 (0^h UT)

Tag	α	δ	Δ	φ	m_V	$\varnothing_{\dot{A}}$	\varnothing_P	R- \varnothing_g	R- \varnothing_k	D_s	D_e
1	19:08	-22.2	9.12	2.2	0.4	18.1"	16.5"	41.1"	17.2"	24.3	24.8
6	19:06	-22.3	9.16	2.7	0.4	18.1"	16.5"	41.0"	17.2"	24.2	24.9
11	19:05	-22.3	9.20	3.1	0.4	18.0"	16.4"	40.8"	17.2"	24.2	24.9
16	19:04	-22.4	9.25	3.6	0.4	17.9"	16.3"	40.6"	17.1"	24.2	25.0
21	19:03	-22.4	9.30	3.9	0.5	17.8"	16.2"	40.4"	17.1"	24.1	25.0
26	19:02	-22.4	9.36	4.3	0.5	17.7"	16.1"	40.1"	17.0"	24.1	25.1
31	19:01	-22.5	9.42	4.6	0.5	17.6"	16.0"	39.8"	16.9"	24.1	25.1

September 2019 (0^h UT)

Tag	α	δ	Δ	φ	m_V	$\varnothing_{\dot{A}}$	\varnothing_P	R- \varnothing_g	R- \varnothing_k	D_s	D_e
1	19:01	-22.5	9.44	4.7	0.5	17.5"	16.0"	39.8"	16.9"	24.1	25.2
6	19:01	-22.5	9.51	4.9	0.6	17.4"	15.9"	39.5"	16.8"	24.0	25.2
11	19:00	-22.5	9.58	5.2	0.6	17.3"	15.8"	39.2"	16.7"	24.0	25.2
16	19:00	-22.5	9.66	5.3	0.6	17.1"	15.6"	38.9"	16.6"	24.0	25.2
21	19:00	-22.5	9.73	5.5	0.6	17.0"	15.5"	38.6"	16.4"	24.0	25.2
26	19:00	-22.5	9.82	5.6	0.7	16.9"	15.4"	38.2"	16.3"	23.9	25.2

Oktober 2019 (0^h UT)

Tag	α	δ	Δ	φ	m_V	$\varnothing_{\text{Ä}}$	\varnothing_P	R- \varnothing_g	R- \varnothing_k	D_s	D_e
1	19:01	-22.5	9.90	5.7	0.7	16.7"	15.3"	37.9"	16.2"	23.9	25.2
6	19:01	-22.5	9.98	5.7	0.7	16.6"	15.1"	37.6"	16.0"	23.9	25.2
11	19:02	-22.5	10.06	5.7	0.7	16.4"	15.0"	37.3"	15.9"	23.8	25.2
16	19:03	-22.5	10.15	5.6	0.7	16.3"	14.9"	37.0"	15.7"	23.8	25.1
21	19:04	-22.5	10.23	5.5	0.7	16.2"	14.8"	36.7"	15.6"	23.8	25.1
26	19:05	-22.5	10.31	5.4	0.8	16.1"	14.6"	36.4"	15.4"	23.7	25.0
31	19:07	-22.4	10.39	5.3	0.8	15.9"	14.5"	36.1"	15.3"	23.7	25.0

November 2019 (0^h UT)

Tag	α	δ	Δ	φ	m_V	$\varnothing_{\text{Ä}}$	\varnothing_P	R- \varnothing_g	R- \varnothing_k	D_s	D_e
1	19:07	-22.4	10.40	5.2	0.8	15.9"	14.5"	36.1"	15.2"	23.7	25.0
6	19:08	-22.4	10.48	5.0	0.8	15.8"	14.4"	35.8"	15.1"	23.6	24.9
11	19:10	-22.3	10.55	4.8	0.8	15.7"	14.3"	35.6"	14.9"	23.6	24.8
16	19:12	-22.3	10.62	4.5	0.8	15.6"	14.2"	35.4"	14.8"	23.6	24.7
21	19:14	-22.3	10.68	4.2	0.8	15.5"	14.1"	35.1"	14.6"	23.5	24.6
26	19:16	-22.2	10.74	3.9	0.8	15.4"	14.0"	35.0"	14.5"	23.5	24.5

Dezember 2019 (0^h UT)

Tag	α	δ	Δ	φ	m_V	$\varnothing_{\text{Ä}}$	\varnothing_P	R- \varnothing_g	R- \varnothing_k	D_s	D_e
1	19:18	-22.1	10.80	3.6	0.8	15.3"	14.0"	34.8"	14.4"	23.5	24.4
6	19:20	-22.1	10.85	3.2	0.8	15.3"	13.9"	34.6"	14.2"	23.4	24.3
11	19:22	-22.0	10.89	2.8	0.8	15.2"	13.8"	34.5"	14.1"	23.4	24.2
16	19:25	-21.9	10.93	2.5	0.8	15.1"	13.8"	34.3"	14.0"	23.4	24.0
21	19:27	-21.9	10.96	2.0	0.8	15.1"	13.7"	34.2"	13.9"	23.3	23.9
26	19:29	-21.8	10.99	1.6	0.8	15.1"	13.7"	34.2"	13.8"	23.3	23.7
31	19:32	-21.7	11.01	1.2	0.8	15.0"	13.7"	34.1"	13.6"	23.3	23.6