

ASTR381 Table Output

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Table 1: Summary table of VLT/MUSE observations of 2I/Borisov, with geometrical information. Observation dates and times are in UTC. ‘Starting altitude’ refers to the altitude of 2I/Borisov at the start of each observation. ‘Airmass’ refers to airmass during each observation. ‘r’ is the distance of 2I/Borisov relative to the Sun. ‘ Δ ’ is the distance of 2I/Borisov relative to the Earth. ‘Elongation’ angle is the angle between the Sun and 2I/Borisov, with Earth as the reference point. ‘ α ’ is the phase angle of the comet relative to the Earth and Sun.

Observation Date (UTC)	Starting Altitude	Airmass	r	Δ	Elongation	α
—	°	—	au	au	°	°
2019-Nov-14 08:03:10	28.7	2.17	2.08	2.23	68.25	26.26
2019-Nov-14 08:19:45	32.4	1.95	2.08	2.23	68.25	26.26
2019-Nov-15 08:02:02	29.3	2.13	2.07	2.22	68.60	26.40
2019-Nov-15 08:18:33	32.9	1.92	2.07	2.22	68.61	26.40
2019-Nov-15 08:53:20	40.5	1.60	2.07	2.22	68.61	26.40
2019-Nov-26 07:17:24	28.0	2.16	2.02	2.09	72.41	27.69
2019-Nov-26 07:34:33	31.9	1.93	2.02	2.09	72.42	27.69
2019-Nov-26 07:46:28	34.6	1.79	2.02	2.09	72.42	27.69
2019-Nov-26 08:03:33	38.5	1.64	2.02	2.09	72.43	27.70
2019-Dec-05 07:09:26	33.2	1.82	2.01	2.02	75.40	28.36
2019-Dec-05 07:26:38	37.2	1.66	2.01	2.02	75.40	28.36
2019-Dec-05 07:38:31	39.9	1.57	2.01	2.02	75.40	28.36
2019-Dec-05 07:55:01	43.6	1.46	2.01	2.02	75.41	28.36
2019-Dec-06 07:37:32	40.4	1.55	2.01	2.01	75.73	28.42
2019-Dec-06 07:53:57	44.1	1.45	2.01	2.01	75.73	28.42
2019-Dec-06 08:05:52	46.9	1.38	2.01	2.01	75.73	28.42
2019-Dec-06 08:25:06	51.2	1.30	2.01	2.01	75.74	28.42
2019-Dec-21 07:56:19	54.8	1.21	2.03	1.94	80.39	28.60
2019-Dec-21 08:13:29	58.6	1.16	2.03	1.94	80.39	28.60
2019-Dec-21 08:25:25	61.2	1.13	2.03	1.94	80.40	28.60
2019-Dec-21 08:42:26	64.9	1.10	2.03	1.94	80.40	28.60

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Observation Date (UTC)	Starting Altitude	Airmass	r	Δ	Elongation	α
—	°	—	au	au	°	°
2019-Dec-23 05:50:43	28.8	1.98	2.03	1.94	80.96	28.55
2019-Dec-23 06:07:20	32.3	1.80	2.03	1.94	80.97	28.55
2019-Dec-23 06:19:16	34.9	1.69	2.03	1.94	80.97	28.55
2019-Dec-23 06:42:59	40.0	1.52	2.03	1.94	80.97	28.55
2019-Dec-29 05:18:41	26.2	2.12	2.06	1.94	82.74	28.30
2019-Dec-29 05:38:15	30.2	1.89	2.06	1.94	82.74	28.29
2019-Dec-29 05:50:13	32.6	1.77	2.06	1.94	82.74	28.29
2019-Dec-29 06:09:06	36.5	1.62	2.06	1.94	82.75	28.29
2019-Dec-31 05:36:51	31.1	1.83	2.07	1.94	83.33	28.18
2019-Dec-31 05:53:46	34.5	1.69	2.07	1.94	83.33	28.18
2019-Dec-31 06:05:41	36.9	1.60	2.07	1.94	83.33	28.18
2019-Dec-31 06:22:04	40.2	1.49	2.07	1.94	83.34	28.17
2020-Feb-02 04:17:53	33.6	1.66	2.35	2.08	93.18	24.71
2020-Feb-02 04:46:27	37.6	1.52	2.35	2.08	93.18	24.70
2020-Feb-02 05:03:48	40.0	1.45	2.35	2.08	93.19	24.70
2020-Feb-04 03:18:11	26.2	2.01	2.38	2.10	93.81	24.44
2020-Feb-04 03:46:44	30.1	1.80	2.38	2.10	93.81	24.44
2020-Feb-04 04:05:56	32.7	1.69	2.38	2.10	93.82	24.44
2020-Feb-16 04:07:13	36.9	1.53	2.53	2.20	97.83	22.77
2020-Feb-16 04:24:06	38.8	1.47	2.53	2.20	97.84	22.77
2020-Feb-16 04:35:59	40.1	1.44	2.53	2.20	97.84	22.77
2020-Feb-16 04:51:50	41.8	1.39	2.53	2.20	97.84	22.77
2020-Feb-16 05:04:46	43.1	1.36	2.53	2.20	97.85	22.77
2020-Feb-25 03:28:18	35.4	1.57	2.65	2.28	101.03	21.49
2020-Feb-25 03:43:47	36.9	1.52	2.65	2.28	101.04	21.49
2020-Feb-25 03:55:37	38.1	1.49	2.65	2.28	101.04	21.49
2020-Feb-25 04:11:53	39.7	1.44	2.65	2.28	101.04	21.49
2020-Feb-28 04:20:27	41.0	1.41	2.70	2.31	102.15	21.05
2020-Feb-28 04:32:18	42.0	1.38	2.70	2.31	102.15	21.05
2020-Feb-28 04:48:45	43.3	1.35	2.70	2.31	102.15	21.05

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Observation Date (UTC)	Starting Altitude	Airmass	r	Δ	Elongation	α
—	°	—	au	au	°	°
2020-Mar-16 04:41:49	44.3	1.33	2.96	2.48	108.59	18.61
2020-Mar-16 04:58:16	44.8	1.32	2.96	2.48	108.59	18.61
2020-Mar-16 05:10:08	45.2	1.31	2.96	2.48	108.60	18.61
2020-Mar-16 05:28:34	45.5	1.30	2.96	2.48	108.60	18.61