

**2017 NJAA Spring Fling (SF) observing list.** Messier plus other objects. In Machholz Messier Marathon observing order, with other objects inserted in correct RA order. Listed are spring fling observing number (SF#), messier number (M#), NGC #, Constellation, Object type (see footnote\*) RA, DEC, Magnitude and Size.

SF#	Mach #	M#	NGC#	Con	Type	RA	DEC	Mag.	Size
1.	7.	M52	7654	Cas	OC	23 24.2	+61 35	7.3	13.0
2.	8.	M103	581	Cas	OC	01 33.2	+60 42	7.4	6.0
3.	10.	M34	1039	Per	OC	02 42.0	+42 47	5.5	35.0
4.	11.	M45	-	Tau	OC	03 47.0	+24 07	1.6	110.0
5.	13.	M42	1976	Ori	BN	05 35.4	-05 27	4.0	85x60
6.	14.	M43	1982	Ori	BN	05 35.6	-05 16	9.0	20x15
7.	15.	M78	2068	Ori	BN	05 46.7	+00 03	8.3	8x6
8.	16.	M1	1952	Tau	SNR	05 34.5	+22 01	8.4	6x4
9.	17.	M35	2168	Gem	OC	06 08.9	+24 20	5.3	28.0
10.	18.	M37	2099	Aur	OC	05 52.4	+32 33	6.2	24.0
11.	19.	M36	1960	Aur	OC	05 36.1	+34 08	6.3	12.0
12.	20.	M38	1912	Aur	OC	05 28.4	+35 50	7.4	21.0
13.		<i>UU Aur</i>		<i>Aur</i>	<i>CS</i>	<i>06 36.5</i>	<i>+42 30</i>	<i>5.9</i>	<i>star</i>
14.	21.	M41	2287	CMa	OC	06 46.0	-20 44	4.6	38.0
15.	22.	M93	2447	Pup	OC	07 44.6	-23 52	6.0	22.0
16.	23.	M47	2422	Pup	OC	07 36.6	-14 30	5.2	30.0
17.	24.	M46	2437	Pup	OC	07 41.8	-14 49	6.0	27.0
18.	25.	M50	2323	Mon	OC	07 03.2	-08 20	6.3	16.0
19.	26.	M48	2548	Hya	OC	08 13.8	-05 48	5.5	54.0
20.	27.	M44	2632	Cnc	OC	08 40.1	+19 59	3.7	95.0
21.	28.	M67	2682	Cnc	OC	08 50.4	+11 49	6.1	30.0
22.	29.	M95	3351	Leo	SG	10 44.0	+11 42	9.7	4.4x3.3
23.	30.	M96	3368	Leo	SG	10 46.8	+11 49	9.2	6x4
24.	31.	M105	3379	Leo	EG	10 47.8	+12 35	9.3	2.0
25.	32.	M65	3623	Leo	SG	11 18.9	+13 05	9.3	8x1.5
26.	33.	M66	3627	Leo	SG	11 20.2	+12 59	8.9	8x2.5
27.	34.	M81	3031	UMa	SG	09 55.6	+69 04	6.9	21x10
28.	35.	M82	3034	UMa	IG	09 55.8	+69 41	8.4	9x4
29.	36.	M97	3587	UMa	PN	11 14.8	+55 01	9.9	3.4x3.3
30.	37.	M108	3556	UMa	SG	11 11.5	+55 40	10.0	8x1
31.	38.	M109	3992	UMa	SG	11 57.6	+53 23	9.8	7x4
32.	39.	M40		UMa	AS	12 22.4	+58 05	8.4	0.8
33.	40.	M106	4258	CVn	SG	12 19.0	+47 18	8.4	19x8
34.	41.	M94	4736	CVn	SG	12 50.9	+41 07	8.2	7x3
35.	42.	M63	5055	CVn	SG	13 15.8	+42 02	8.6	10x6
36.	43.	M51	5194	CVn	SG	13 29.9	+47 12	8.4	11x7
37.	44.	M101	5457	UMa	SG	14 03.2	+54 21	7.9	22.0
38.	45.	M102?	5866	Dra	LG	15 06.5	+55 46	9.9	5.2x2.3

			6543	<i>Dra</i>	<i>PN</i>	17 58.6	+66 38	8.1	18x18
39.	46.	M53	5024	Com	GC	13 12.9	+18 10	7.6	12.6
40.	47.	M64	4826	Com	SG	12 56.7	+21 41	8.5	9.3x5.4
41.	48.	M3	5272	CVn	GC	13 42.2	+28 23	6.2	16.2
42.	49.	M98	4192	Com	SG	12 13.8	+14 54	10.1	9.5x3.2
43.	50.	M99	4254	Com	SG	12 18.8	+14 25	9.9	5.4x4.8
44.	51.	M100	4321	Com	SG	12 22.9	+15 49	9.3	7x6
45.	52.	M85	4382	Com	LG	12 25.4	+18 11	9.1	7.1x5.2
46.	53.	M84	4374	Vir	LG	12 25.1	+12 53	9.1	5.0
47.	54.	M86	4406	Vir	LG	12 26.2	+12 57	8.9	7.5x5.5
48.	55.	M87	4486	Vir	EG	12 30.8	+12 24	8.6	7.0
49.	56.	M89	4552	Vir	EG	12 35.7	+12 33	9.8	4.0
50.	57.	M90	4569	Vir	SG	12 36.8	+13 10	9.5	9.5x4.5
51.	58.	M88	4501	Com	SG	12 32.0	+14 25	9.6	7x4
52.	59.	M91	4548	Com	SG	12 35.4	+14 30	10.2	5.4x4.4
53.	60.	M58	4579	Vir	SG	12 37.7	+11 49	9.7	5.5x4.5
54.	61.	M59	4621	Vir	EG	12 42.0	+11 39	9.6	5x3.5
55.	62.	M60	4649	Vir	EG	12 43.7	+11 33	8.8	7x6
56.	63.	M49	4472	Vir	EG	12 29.8	+08 00	8.4	9x7.5
57.	64.	M61	4303	Vir	SG	12 21.9	+04 28	9.7	6x5.5
58.	65.	M104	4594	Vir	SG	12 40.0	-11 37	8.0	9x4
59.		<i>Theta Vir</i>		<i>Vir</i>	<i>DS</i>	<i>13 09.9</i>	<i>-05 32</i>	<i>4.4</i>	
60.	66.	M68	4590	Hya	GC	12 39.5	-26 45	7.8	12.0
61.	67.	M83	5236	Hya	SG	13 37.0	-29 52	7.6	11x10
62.	68.	M5	5904	Ser	GC	15 18.6	+02 05	5.6	17.4
63.	69.	M13	6205	Her	GC	16 41.7	+36 28	5.8	16.6
64.	70.	M92	6341	Her	GC	17 17.1	+43 08	6.4	11.2

**\*Type**

OC	open cluster
GC	globular cluster
PN	planetary nebula
BN	bright nebula
SG	spiral galaxy
EG	elliptical galaxy
IG	irregular galaxy
LG	lenticular galaxy
SNR	supernova remnant
AS	asterism
CS	carbon star
DS	double star