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HI-Observations of galaxies in the Virgo cluster of galaxies.

I. The data

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Summary. — New HI-data for a large number of bright galaxies inside the 10° radius area of the Virgo cluster of galaxies have been obtained with the 100 m radiotelescope at Effelsberg. 234 galaxies were observed for the first time. Among them 53 have been detected providing new accurate radial velocities. Data from the literature have been compiled. Together with the new data they form a (nearly homogeneous) set of HI observations for more than 450 galaxies.

Key words : galaxies, cluster of — Virgo — HI observations — redshifts — catalogue.

1. Introduction.

Galaxies inside clusters are believed to suffer from environmental effects provided by the strong gravitational potential and the hot intergalactic medium evidenced in X-ray observations. The gas in the outer disks of these galaxies is liable to be affected most easily by gravitational forces in case of interactions and by ram pressure from the intracluster gas in the course of the evolution of clusters.

The Virgo cluster of galaxies is the nearest such cluster. Therefore, any observation can be made with much higher sensitivity than for other more distant clusters like Coma or Hercules. Naturally, this is the reason why there is a very larger number of observations available for Virgo cluster galaxies ranging from the radio to the X-ray domain (cf. Richter and Binggeli, 1985).

Of particular interest for the evolution of spiral galaxies in clusters is the study of their HI properties as opposed to those of « field » galaxies. Recent studies showed that Virgo cluster spirals tend to have a smaller HI content than galaxies of the same morphological type far from any galaxy aggregate (e.g., Chamaraux *et al.*, 1980; Giovanardi *et al.*, 1983; Giovanelli and Haynes, 1983). This effect shows a systematic trend with distance from the cluster centre. Van Gorkom *et al.* (1984) found from their VLA maps for some of the brightest spirals inside the 6° radius that galaxies inside about 2°.5 are markedly different from those further out. They attribute this observational finding to the effect of ram-pressure stripping by the intergalactic medium. Galaxies in the Virgo cluster but not near its centre appear to be rather « normal » (e.g., Tully and Shaya, 1984).

In order to have a complete sample available for statistical studies of the HI properties of Virgo cluster spiral galaxies we undertook to observe all spiral and irregular galaxies brighter than $B_T^{0,i} = 14^m.2$ inside the 10° radius circle around M 87 which had not been observed before our program began. The observations are briefly described in section 2 and the results are presented in section 3. The new data together with data from the literature are compiled into a catalogue in section 4. A very brief discussion of the sample in section 5 concludes the paper. The analysis of this data sample is presented in a separate paper in the main journal (Huchtmeier and Richter, 1985a, paper II).

2. The observations.

Observations were made during several observing runs from the end of 1982 until October 1984. They were performed with the 100 m radiotelescope at Effelsberg with a spatial resolution of 9′. A cooled two-channel FET receiver was used together with the 384 (i.e., 2.192) channel autocorrelator. With a bandwidth of 10 MHz the channel spacing of 11 km s^{-1} resulted in a resolution of 13.2 km s^{-1} (or 22 km s^{-1} after Hanning smoothing was applied to the data). Galaxies with known radial velocities were observed with both channels centered at this velocity. Other galaxies were observed in a search-mode where the second channel was offset by about + 1 700 km s^{-1} with respect to the first. This gave a useful velocity coverage from − 400 to 3300 km s^{-1}. Occasionally, we observed a few galaxies at higher radial velocities when new optical redshifts became known for them. The total system noise

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temperature was around 40 K at best. Observations were performed in the total power mode. More details on the observations and the calibration and data reduction procedures were presented by Richter and Huchtmeier (1982).

For a few galaxies our observations should be taken with care because of potential confusion problems. However, averaging (often with higher resolution Arecibo data) alleviated the problem. For more information see the notes in the catalogue (Table III).

3. The data.

Final calibrated HI profiles of 77 galaxies are presented in figure 1. The measured parameters from our observations are presented in table I. There we list the galaxy's name (col. 1), its (1950.0) coordinates (cols. 2 and 3), the morphological type (col. 4), the optical heliocentric radial velocity and its mean error (cols. 5 and 6), the total blue magnitude (col. 7), the HI heliocentric radial velocity and its error (cols. 8 and 9), the measured HI flux and its error (cols. 10 and 11), the HI linewidths at 50 % and 20 % of the peak flux (cols. 12 and 13), and finally, the peak and the rms flux (cols. 14 and 15). The optical data are all on the same systems and have been taken mainly from an enlarged version of the (1982) catalogue by Kraan-Korteweg (1984). For some galaxies data were also taken from Reaves (1983), or from Binggeli *et al.* (1984) or Sandage and Binggeli (1984). For a few galaxies that were initially included in our *search* list optical radial velocities became available during the course of our survey (Huchra, 1984). Some of these galaxies turned out to have radial velocities above the upper limit of our search range (3300 km s^{-1}). Nevertheless, for completeness they are listed in table II.

In fact, we expect many of the non-detections to be due to radial velocities outside our search range. Velocities between 6000 and 7000 km s^{-1}, which are typical for the Coma/Abell 1367 supercluster, are found quite frequently for galaxies fainter than $B_T \simeq 14^{m}.0$. Clearly, more optical radial velocities are needed in the first place.

4. The catalogue.

Published data for all galaxies inside a radius of 10° around M 87, the adopted cluster centre, were collected (cf. Huchtmeier *et al.*, 1983 for references before 1983; Giovanardi *et al.*, 1983; Helou *et al.*, 1984) and edited before averaging. In table III the adopted values from the literature are given. The discussion of confusion problems is delegated to the notes given at the end of table III. The columns are practically the same as in table I, but log D_0 and log r_0, the optical dimensions in the system of the RC2 (de Vaucouleurs *et al.*, 1976) are added in columns 8 and 9, all further columns being renumbered accordingly. If only an HI flux is quoted but no HI redshift and no linewidths this is actually the adopted upper limit. References to the original sources can be found in the HI catalogue. Galaxies with known (heliocentric) redshifts larger than 4000 km s^{-1} were excluded from this sample. An example for the editing and averaging procedure has been given in a similar study of nearby galaxies (Huchtmeier and Richter, 1985b). A few general comments concerning HI data for multiply observed galaxies in table III are :

1) Agreement in radial velocities is excellent.
2) The linewidths determined by different authors agree fairly well.
3) A large scatter in the flux integral for large (bright) galaxies is observed, which cannot be accounted for by incomplete sampling of extended galaxies.

Where possible we corrected linewidths for instrumental broadening (following Thuan and Seitzer, 1980) if not done in the appropriate publication. Also flux values of small galaxies observed with single dish telescopes with larger beam size were corrected for the extent of the HI distribution accepting the procedure outlined by Fisher and Tully (1975, 1981).

All the necessary corrections to the basic data will be discussed in paper II, where the sample will be analyzed in detail.

5. Conclusion.

The available HI data for Virgo cluster galaxies have been collected and compiled into a homogeneous catalogue. This data sample is the largest set of such observations for any galaxy cluster. In fact, it constitutes a more than tenfold increase in sample size over the first systematic HI observations of galaxies in the Virgo cluster about a decade ago.

The possible differences of Virgo cluster galaxies from galaxies in the field of the local supercluster will be the subject of a second paper. The third (and final) paper in this series will make use of all available radial velocities and masses determined from the HI data to discuss the dynamical state of the Virgo cluster.

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TABLE I. — *Catalogue of basic HI data for galaxies.*

Name (1)	R.A. (2)	Dec. (3)	Type (4)	v_{opt} [km s^{-1}] (5)	(6)	B_T (7)	v_{HI} [km s^{-1}] (8)	(9)	$\int S * dv$ [Jy · km s^{-1}] (10)	(11)	Δv_{50} [km s^{-1}] (12)	Δv_{20} (13)	S_{max} [Jy] (14)	S_{rms} (15)
UGC 6913	11^h 53^m 42^s	17° 18′	Sb			14ᵐ70								0.005
NGC 4012	11 55 54	10 18	Sb II			14.27								0.005
NGC 4014	11 56 01.5	16 27 22	Sb II	3775	24	13.41	3773	7	12.1	5.0	403	447	0.020	0.004
IC 755	11 58 36.4	14 23 05	SBb	1501	35	13.61	1509	5	10.9	1.3	179	210	0.093	0.008
UGC 7016	11 59 48	15 07	Sb			14.75								0.006
NGC 4049	12 00 20.5	19 01 53	S III-IV	839	25	14.20	829	10	3.7	0.43	86	115	0.047	0.006
NGC 4067	12 01 37.3	11 08 00	SBc(r)II	2403	25	13.32								0.006
IC 2990	12 02 04.2	11 18 48				14.63								0.007
NGC 4078	12 02 14.2	10 52 27	$S0_1(6)$	410	150	14.08								0.006
NGC 4082	12 02 36.0	10 55 48	S			14.69								0.008
UGC 7100	12 04 12	17 59	Sc I-II			14.66								0.007
NGC 4110	12 04 30	18 48	SBbc(rs)I			14.58								0.009
UGC 7133	12 06 48	19 16	SBd(s)II			14.70	2267	10	7.0	1.3	196	215	0.046	0.007
IC 3021	12 07 24	13 18	Sa:			14.43	2392	15	5.9	1.9	356	420	0.025	0.005
IC 3025	12 07 52.8	10 26 48	d:S0(4)			14.75								0.008
IC 3029	12 08 10.8	13 36 12	SBc(s)I			14.75								0.007
IC 767	12 08 37.2	12 22 48	E3			14.20								0.006
IC 3033	12 08 40.2	13 50 48	Sc			14.65	263	5	4.0	0.9	110	125	0.040	0.006
IC 3032	12 08 40.2	14 32 48	d:E0			14.67								0.007
IC 768	12 09 13.8	12 25 12	Sc(s)II-III			14.28								0.007
UGC 7194	12 09 24	16 30	Sb(r)I-II			14.68								0.006
IC 3040	12 10 01.2	11 21 12	Sm III-IV			15.04								0.010
IC 3039	12 10 04.2	12 34 54	Sc			14.71								0.007
IC 3044	12 10 15.5	14 15 16	Sc(s)I-II pec			13.98								0.006
NGC 4180	12 10 28.9	07 19 01	Sb:	2120	13	13.35	1977	20	2.1	0.4	82	193	0.019	0.004
UGC 7230	12 11 06	16 24	Sc + Sc			14.43								0.008
NGC 4193	12 11 20.6	13 27 08	Sc(s)II	2464	20	13.16	2477	10	3.9	0.9	337	358	0.028	0.002
NGC 4186	12 11 33.8	15 00 17	dSa(r)	2090	100	14.42								0.006
UGC 7249	12 12 04.8	13 05 24	Sc III pec	627		14.76	621	6	6.4	0.8	129	153	0.051	0.009
NGC 4197	12 12 04.9	06 05 01	Scd	2082	32	13.47	2066	5	24.0	2.2	269	293	0.110	0.008
NGC 4200	12 12 11.0	12 27 32	$S0_1(4)$	2347	28	13.85								0.009
IC 3060	12 12 28.8	12 49 24	Sab			14.64								0.007
IC 3063	12 12 40.2	12 16 54	S pec			14.81								0.007
IC 771	12 12 40.2	13 27 54	SBc(s)II			14.56								0.007
NGC 4206	12 12 43.7	13 18 10	Sbc(s):	373	100	12.81	703	5	36.8	2.5	277	295	0.020	0.009
IC 3065	12 12 45.0	14 40 54	$S0_{1/2}(4)$			14.40								0.006
NGC 4207	12 12 57.1	09 51 46	Sc pec	616	18	13.48	596	10	7.2	0.9	196	230	0.033	0.005
IC 3073	12 13 06	13 53	dS0 ?			14.95								0.007
A1213+04	12 13 24	04 56	Merger?			14.29	2175	10	3.8	0.6	106	151	0.057	0.008
IC 3080	12 13 30	14 28	SBa			14.87								0.007
IC 3078	12 13 34.2	12 55 54	Sb(r)I			14.69								0.005
IC 3093	12 14 15.0	14 31 54	Sc			14.67								0.006
IC 3094	12 14 25.2	13 54 12	dS ?	-169	34	14.44								0.006
IC 3096	12 14 27.0	14 45 54	Sc:			14.63								0.006
IC 3097	12 14 28.2	09 41 00	dE5 pec			14.76								0.006
NGC 4233	12 14 33.4	07 54 03	$SB0_1(6)$ pec	2224	188	12.97								0.004
NGC 4234	12 14 35.3	03 57 38	SBc III.4	2143	90	13.37	2021	15	3.8	0.66	110	168	0.038	0.006
IC 3099	12 14 37.8	12 43 48	Scd	2246	60	14.90	2130	10	7.2	1.5	211	239	0.041	0.007
NGC 4237	12 14 38.2	15 36 08	Sc(r)II.8	916	15	12.54								0.005
NGC 4239	12 14 42.3	16 48 35	$S0_1(5)$	946	17	13.35								0.004
NGC 4241	12 14 52.1	06 58 05	Sa	2235	25	13.00								0.008
A1214+17	12 14 54	17 55				14.35								0.009
A1215+13	12 15 12	13 27	Sc(s)I			14.61								0.006
IC 3109	12 15 16.2	13 24 54				14.72								0.006
NGC 4249	12 15 27.0	05 51 54	$S0_1(0)$			14.48								0.007
IC 3115	12 15 26.4	06 55 53	SBbc(s)I-II	2261	23	13.82	731	5	10.0	0.9	119	140	0.100	0.006
IC 3118	12 15 33.0	09 46 36	dS0(6)			14.54								0.006
IC 773	12 15 34.8	06 24 36	SBb(s)			14.28								0.006
NGC 4254	12 16 16.9	14 41 46	Sc(s)I.3	2413	10	10.77	2417	5	69.5	2.4	222	268	0.406	0.006
IC 3131	12 16 18.0	08 08 18	d:$S0_1(0)$			14.30								0.006
NGC 4255	12 16 22.6	05 03 51	$S0_1(6)$	1696	50	13.61								0.006
IC 3134	12 16 24.0	09 14 12	Sa			14.62	2376	10	2.5	1.0	173	246	0.022	0.007
IC 3136	12 16 25.0	06 27 45	Sc(s)II			14.86								0.007
IC 3142	12 16 33.6	14 15 00	Sd or Im			14.80								0.007
NGC 4257	12 16 33.8	06 00 09	Sa			14.91								0.006

TABLE I (continued)

Name (1)	R.A. (2)	Dec. (3)	Type (4)	v_{opt} [km s^{-1}] (5)	(6)	B_T (7)	v_{HI} [km s^{-1}] (8)	(9)	$\int S * dv$ [Jy · km s^{-1}] (10)	(11)	Δv_{50} [km s^{-1}] (12)	Δv_{20} (13)	S_{max} [Jy] (14)	S_{rms} (15)
IC 3147	12^h 16^m 42^s	12° 20′	S + E			$14^m.95$								0.006
IC 3151	12 16 58.2	09 41 00	SBa(r)I			14.63								0.006
NGC 4264	12 17 02.8	06 07 25	SBa(s)	2633	100	13.86								0.008
NGC 4266	12 17 10.2	05 49 00	Sa			14.51								0.006
IC 3155	12 17 12	06 16	$S0_1$(6)	2045	100	14.89	2292	25	2.4	0.6	374	406	0.021	0.005
IC 3156	12 17 12.0	09 25 36	SBc(s)			14.51								0.005
NGC 4268	12 17 13.9	05 33 41	$S0_2$(6)	2318	100	13.76	2373	10	11.2	1.2	156	318	0.060	0.006
NGC 4269	12 17 15.8	06 17 41	$S0_1$(2)	2535	100	13.69								0.007
NGC 4273	12 17 22.3	05 37 27	SBc(s)II			12.37	2377	10	21.1	1.6	234	310	0.104	0.007
UGC 7383	12 17 28.8	08 52 54	Sbc(r)I.2			14.46								0.006
NGC 4276	12 17 34.7	07 58 10	Sc(s)II	2628	21	13.25	2611	5	3.9	0.6	115	132	0.040	0.007
IC 781	12 17 36	15 14	$dS0_1$(4)			14.61								0.006
RMB 80	12 17 37.8	08 55 12	Sc(s)II			14.60								0.007
IC 3167	12 17 46.8	09 49 24	dSB0(3) or dE3pec			14.64								0.0056
IC 3170	12 17 55.2	09 42 00	Sbc(s)I-II			14.51								0.006
IC 3175	12 17 58.2	10 07 00	Sb(r)II			14.86								0.005
NGC 4287	12 18 12	05 55	S			14.65								0.007
NGC 4289	12 18 28.8	03 59 48	Sb	2500	50	14.34	2541	5	17.1	3.2	358	375	0.092	0.009
NGC 4292	12 18 43.1	04 52 25	$SB0_2$/a	2258	25	13.50								0.006
IC 782	12 19 00.0	06 02 30	SB0/Sa(r)			14.60								0.007
NGC 4301	12 19 04.2	05 02 48	$S0_1$(7)/a			14.77								0.006
NGC 4300	12 19 08.6	05 39 47	Sa ring	3210	31	13.76								0.006
IC 3199	12 19 09.0	10 51 54	$RSB0_2$(4)			14.89								0.006
NGC 4303	12 19 21.4	04 44 58	Sc(s)I.2			10.19	1567	3	82.5	2.5	159	182	0.615	0.009
NGC 4305	12 19 31.4	13 01 03	Sa(s)I	1876	13	13.32								0.005
NGC 4309	12 19 38.9	07 25 20	SBa pec	1056	26	13.59	869	30	4.2	1.2	138	231	0.024	0.003
UGC 7439	12 19 54	04 50	Sc III			13.61	1277	5	21.6	0.71	118	140	0.200	0.006
NGC 4313	12 20 05.6	12 04 51	Sab	1436	22	12.73								0.0055
IC 3225	12 20 07.2	06 57 06	Scd III			14.36	2369	10	7.0	0.9	130	226	0.053	0.007
NGC 4316	12 20 10.0	09 36 33	Sbc I-II	1262	28	13.70	1254	5	11.0	1.6	310	330	0.049	0.005
NGC 4320	12 20 25.2	10 49 24	Merger?			14.76								0.011
NGC 4322	12 20 30.6	16 10 54	dE5			14.70	1524	10	16.0	3.0	88	195	0.011	0.007
NGC 4325	12 20 33.0	10 53 36	E4			14.40								0.006
NGC 4330	12 20 44.0	11 38 43	Sd	1573	17	13.10	1575	15	8.4	0.9	249	304	0.041	0.003
NGC 4336	12 20 58.1	19 42 16	SBa(r)	1134	34	13.61								0.009
IC 3255	12 21 03.0	09 54 54	SBb(s)I			14.44								0.007
UGC 7464	12 21 06	03 14	Sc(s)II-III			14.80								0.007
NGC 4344	12 21 06.1	17 49 05	S pec	1247	34	13.21	1131	20	1.9	0.4	73	142	0.020	0.004
NGC 4341	12 21 19.7	07 23 06	$S0_1$(8)	1103	100	14.11								0.006
NGC 4353	12 21 27.4	08 03 44	Sc(s)II-III	1060	100	13.94								0.005
NGC 4352	12 21 32.2	11 29 45	$S0_1$(8)	2106	22	13.61								0.0037
IC 3267	12 21 32.8	07 19 10	Sc(s)II.2	2131	100	14.20	1231	15	0.9	0.2	57	78	0.019	0.004
RMB 109	12 21 36.0	09 39 30	$S0_1$(0)			14.69								0.008
NGC 4356	12 21 37.8	08 47 54	Sc	1165	30	14.04								0.006
IC 3274	12 21 43.2	09 32 30	S0:			14.68								0.009
IC 3298	12 22 31.8	17 18 54	SBc			14.91	2474	25	0.8	0.2	65	102	0.011	0.004
NGC 4376	12 22 45.1	06 01 06	Scd(s)III	1156	35	13.69	1136	10	4.4	0.8	134	156	0.042	0.006
NGC 4380	12 22 49.6	10 17 33	Sab(s)	963	7	12.36	968	15	3.2	0.5	237	288	0.027	0.003
NGC 4383	12 22 53.8	16 44 48	Amorphous	1693	15	12.68	1711	10	44.7	4.5	210	233		0.007
NGC 4390	12 23 17.6	10 44 13	Sbc(s)II	1118	43	13.27	1105	10	7.2	0.66	132	155	0.056	0.005
IC 3328	12 23 25.8	10 19 42	dE1			14.42								0.006
NGC 4402	12 23 35.8	13 23 22	Sc			12.59								0.019
NGC 4405	12 23 35.8	16 27 26	Sc(s)/Sa	1822	40	12.99	1845	25	4.9	0.8	334	402	0.021	0.003
IC 789	12 23 49.8	07 44 54	SB0/a			14.71								0.006
NGC 4412	12 24 02.6	04 14 33	SBbc(s)II	1735	15	13.14	2301	15	4.0	0.8	107	151	0.044	0.005
IC 3344	12 24 06.0	13 50 42	dE6 or $S0_1$(6)			14.70								0.007
RMB 143	12 24 10.8	09 19 12	SBa(s)			14.75								0.008
NGC 4416	12 24 14.5	08 11 51	SBc(s)II.2	1380	23	12.89	1390	10	5.2	0.76	151	171	0.039	0.005
NGC 4420	12 24 24.6	02 46 15	Sc(s)III			12.67	1688	5	15.6	1.5	190	208	0.097	0.008
IC 792	12 24 37.2	16 36 18	Sc(s)II			14.61								0.005
IC 3369	12 24 43.2	16 19 00	dE6 or $S0_1$(6)			14.81								0.007
NGC 4430	12 24 53.6	06 32 23	SBc(r)II	1472	19	12.48	1438	15	8.3	0.94	105	181	0.064	0.009
NGC 4431	12 24 54.6	12 34 03	$dS0_1$(5)	875	29	13.72								0.004
A1224+09	12 24 58.2	09 52 00	Im V			14.5								0.006
NGC 4432	12 25 00	06 30	Sc(s)I-II			14.81								0.008

TABLE I (continued)

Name (1)	R.A. (2)	Dec. (3)	Type (4)	v_{opt} [km s^{-1}] (5)	(6)	B_T (7)	v_{HI} [km s^{-1}] (8)	(9)	$\int S*dv$ [Jy · km s^{-1}] (10)	(11)	Δv_{50} [km s^{-1}] (12)	Δv_{20} (13)	S_{max} [Jy] (14)	S_{rms} (15)
NGC 4434	12^h 25^m $04^s.2$	08° 25′ 53″	$S0_1$(0)/E0	1052	24	$12^m.99$								0.004
NGC 4436	12 25 09.6	12 35 35	dE6/dS0(6)	1324	30	14.03								0.006
A1225+08	12 25 09.0	08 48 48	dE5 or Im IV-V			16.1								0.012
RMB 71	12 25 23.4	12 38 42	dE			16.0								0.013
RMB 169	12 25 49.2	09 00 24	Sbc(s)I.8			14.74	1118	5	15.6	1.3	165	181	0.106	0.008
IC 3388	12 25 54	13 06	dE4	1873	112	14.87								0.008
IC 3391	12 25 55.6	18 41 32	Sc(s)II	1739	37	14.04	1708	20	1.9	0.65	108	135	0.025	0.006
NGC 4451	12 26 08.1	09 32 05	Sc(s)III	876	39	13.35								0.006
IC 3392	12 26 12.0	15 16 40	Sc/Sa	1678	28	13.30								0.005
IC 3393	12 26 16.2	13 11 00	dE7	400	60	14.82								0.007
NGC 4464	12 26 48.1	08 26 05	E4	1199	50	13.70								0.006
IC 3414	12 26 56.2	07 02 50	Sc(s)II	597	49	13.70	530	15	5.0	0.7	98	136	0.055	0.007
NGC 4466	12 26 58.0	07 58 22	Sc	1012	100	14.62	761	15	2.1	0.6	101	174	0.019	0.004
NGC 4468	12 26 59.6	14 19 33	$S0_1$(3)/a	895	28	13.82	2422	30	6.5	1.5	285	567	0.021	0.004
IC 3416	12 27 06	11 04	Im III			14.78								0.009
IC 3425	12 27 24	10 53	Sb(s)I-II			14.31								0.006
UGC 7636	12 27 30	08 12	Im III-IV			14.72								0.009
NGC 4482	12 27 40.8	11 03 12	d:E5	1845	36	13.68								0.005
UGC 7642	12 27 42	02 54	Sdm III-IV			14.63	1634	5	2.8	0.6	42	64	0.070	0.006
UGC 7644	12 27 48	04 01	Sc			14.44								0.008
IC 3432	12 27 51.0	14 25 06	S pec:			14.64								0.006
A1227+14	12 27 52.2	14 15 30	Im V			16.0								0.006
NGC 4480	12 27 53.4	04 31 27	Sb(r)II	2415	21	13.05	2466	10	14.0	1.5	188	395	0.067	0.008
IC 3436	12 28 07.8	19 56 06		3365	16	14.35								0.006
NGC 4483	12 28 08.3	09 17 30	$SB0_1$	875	80	13.17								0.0044
NGC 4488	12 28 18.9	08 38 17	S0 pec	990	40	12.86								0.0035
NGC 4489	12 28 21.1	17 02 05	$S0_1$(1)	930	21	12.84								0.0055
NGC 4492	12 28 27.4	08 21 13	Sa	1801	25	13.17								0.005
IC 3446	12 28 51.6	11 46 00	Sm III	1199	10	14.75								0.007
NGC 4497	12 29 00.9	11 54 10	$SB0_1$(5)/SBa	1123	32	13.36								0.007
IC 797	12 29 22.9	15 24 00	SBc(s)II-III	2021	17	14.01	2091	17	4.1	0.5	131	170	0.030	0.003
NGC 4502	12 29 31.8	16 57 36	Sm III			14.57	1622	10	2.9	1.0	173	192	0.032	0.005
IC 3466	12 29 36	12 06	Pec	785	20	14.78	891	20	2.5	0.5	58	136	0.029	0.005
NGC 4506	12 29 39.3	13 41 51	S pec	681	100	13.64								0.005
IC 3474	12 30 03.5	02 56 16	Sd			14.82	1732	5	12.6	0.88	146	167	0.095	0.006
IC 3475	12 30 09.5	13 02 54	Im IV or dE2pec			13.88	2583	15	1.5	0.26	63	86	0.023	0.0042
UGC 7697	12 30 24	20 27	Sc			14.89	2536	5	5.6	1.3	215	226	0.038	0.006
NGC 4516	12 30 36.4	14 51 05	$SB0_{2/3}$(5)	958	40	13.67								0.006
IC 3484	12 30 37.2	17 40 00	Sc(s)I			14.89								0.008
NGC 4518	12 30 40.2	08 07 24	$SB0_{2/3}$(r)/a			14.48								0.009
IC 3487	12 30 42.0	09 40 06	E5:			14.76								0.007
NGC 4522	12 31 07.8	09 27 02	Sc/Sb:	2318	10	12.73	2316	15	4.3	0.5	196	232	0.040	0.007
IC 3501	12 31 16.8	13 35 54	d:E0			14.51								0.006
IC 800	12 31 25.8	15 37 51	SBc pec	2295	23	14.05								0.004
NGC 4526	12 31 30.4	07 58 33	$S0_3$(6)	553	12	10.59								0.012
IC 3505	12 31 39.0	16 14 00	SBc			14.91								0.009
IC 3509	12 31 45.0	12 19 00	E4			14.75								0.006
IC 3517	12 32 00	09 26	Sd IV			14.51								0.009
IC 3520	12 32 00	13 46 54	Scd:	1093	70	15.2								0.012
IC 3518	12 32 03.0	09 52 54	dE6pec or dS0(6)			14.64								0.009
NGC 4539	12 32 04.4	18 28 40	SBa pec	1287	34	12.86								0.007
IC 3521	12 32 07.0	07 26 13	SBm pec	573	33	13.98								0.005
IC 3530	12 32 25.2	18 04 00				14.81								0.008
NGC 4543	12 32 46.2	06 23 24	E5			14.04								0.006
A1232+06	12 32 46.8	06 49 12				14.68								0.007
IC 3540	12 32 55.2	13 01 30	$S0_3$(2)			14.14								0.006
NGC 4544	12 33 03.3	03 18 45	Sc	1126	28	13.89	1132	15	4.1	1.0	126	206	0.033	0.005
IC 3567	12 33 51.0	13 52 00	Sbc(s)II			14.75								0.009
IC 3589	12 34 24	07 13	SBm III	1900		14.11	1634	4	8.2	0.5	93	115	0.080	0.005
IC 3586	12 34 24	12 47 24	dS0:			14.72								0.008
NGC 4576	12 35 00.6	04 38 34	S(B)bc(rs):			14.20								0.007
NGC 4580	12 35 15.6	05 38 38	Sc/Sa	1033	23	12.61								0.005
IC 703	12 35 22.8	14 34 00	E3			14.68								0.007
IC 3602	12 35 39.0	10 21 06	dE6			14.88								0.009
NGC 4584	12 35 46.4	13 23 06	Sa(s) pec	1686	9	13.72								0.009

TABLE I *(continued)*

Name (1)	R.A. (2)	Dec. (3)	Type (4)	v_{opt} [km s^{-1}] (5)	(6)	B_T (7)	v_{HI} [km s^{-1}] (8)	(9)	$\int S * dv$ [Jy · km s^{-1}] (10)	(11)	Δv_{50} [km s^{-1}] (12)	Δv_{20} (13)	S_{max} [Jy] (14)	S_{rms} (15)
NGC 4586	12^h 35^m 55^s.1	04° 35′ 37″	Sa	820	21	12^m.55								0.008
NGC 4587	12 36 02.3	02 55 53	E6	901	29	14.04								0.006
NGC 4588	12 36 12	07 02	Sc II-III			14.84								0.008
IC 3611	12 36 33.0	13 38 06	Amorphous ?			13.85								0.004
IC 3612	12 36 37.8	14 59 12	dS0(6)			14.83								0.007
NGC 4591	12 36 39.9	06 17 11	Sb(s)	2450	29	13.70	2428	10	6.0	1.5	289	361	0.038	0.005
IC 3625	12 37 06	11 15	S0:			14.95								0.009
IC 3631	12 37 17.1	13 14 53	S0$_1$(5)/Sa	2839	60	14.17								0.006
IC 3629	12 37 19.8	13 47 12	Sbc			14.68								0.007
NGC 4598	12 37 39.9	08 39 30	SB0$_{2/3}$(2)	1961	23	13.41								0.005
IC 3633	12 37 42	10 09	dE4			14.87								0.009
NGC 4600	12 37 49.4	03 23 38	S0$_1$(6)	787	34	13.47								0.005
IC 3638	12 37 49.8	10 46 12	Sbc(r)II			14.25								0.008
IC 3637	12 37 49.8	14 58 12	dS0$_1$(6) pec			14.92								0.007
IC 855	12 37 49.8	16 12 30	S0(6)			14.69								0.008
NGC 4606	12 38 26.4	12 11 08	Sa pec	1638	18	12.66								0.007
NGC 4607	12 38 40.9	12 09 36	Scd	2440	100	13.75	2259	20	3.3	0.6	210	245	0.020	0.004
IC 3658	12 38 55.8	14 57 48	dE6			14.85								0.008
A1239+09	12 39 07.2	09 28 42	dE1 or Im V			16.0								0.013
UGC 7854	12 39 18	09 41	d:E6			14.91								0.007
NGC 4620	12 39 28.6	13 13 01	S0$_1$/a	1214	60	13.17								0.004
NGC 4630	12 39 58.5	04 14 03	Sbc(s)II-III	697	19	13.14	740	5	7.7	0.7	134	159	0.060	0.005
IC 3686	12 40 01.8	10 49 06	Sc(s)II			14.91								0.008
NGC 4633	12 40 06.6	14 37 47	Sd(s)	302	14	13.80	289	10	9.6	1.2	178	219	0.070	0.007
NGC 4634	12 40 09.7	14 34 13	Sc	262	13	13.29	228	10	2.2	0.22	44	64	0.040	0.005
NGC 4637	12 40 22.8	11 42 36	S0:			14.82								0.007
NGC 4640	12 40 25.8	12 32 00	SB0(4)/Sa	2077	75	14.19	1931	25	5.5	0.7	233	304	0.024	0.003
NGC 4641	12 40 36.0	12 19 24	Sa pec	2305	100	14.12								0.004
NGC 4647	12 41 01.1	11 51 21	Sc(rs)III	1448	130	12.02	1415	5	7.4	1.2	158	184	0.050	0.006
IC 3702	12 41 01.8	11 07 12	SBc			14.71								0.008
IC 3704	12 41 15.0	11 02 36	Sc(s)I-II			14.68								0.006
IC 3709	12 41 30	09 20	Sbc(r)I-II			14.78								0.007
IC 3714	12 41 55.2	10 26 12	SBb(s)I			14.91								0.009
IC 3718	12 42 15.0	12 37 18	Amorphous	954	100	13.68	864	15	1.5	0.5	53	94	0.026	0.005
IC 3716	12 42 18	08 22	Im III ?			14.91								0.008
IC 3724	12 42 25.2	10 32 12	Sc(s)I-II			14.91								0.009
IC 3727	12 42 34.8	11 10 24	dE3:			14.30	2230	15	12.4	3.0	389	472	0.052	0.012
RMB 324	12 42 45.0	10 27 00	Sa			14.88								0.009
IC 3735	12 42 49.8	13 57 36	dE5			14.55								0.006
IC 3742	12 43 07.2	13 35 12	Sc(s)II	915	100	13.86	968	5	10.8	1.1	169	194	0.070	0.006
IC 3745	12 43 16.2	19 26 48				14.56								0.006
IC 815	12 43 54.0	12 08 48	E3	2390	15	14.61								0.004
IC 817	12 44 24.0	10 07 42	E1			14.80								0.008
IC 3773	12 44 44.0	10 28 36	d:S0(6)	1095	44	13.85								0.007
IC 3779	12 44 54	12 25 30	dE6:			14.88								0.008
UGC 7960	12 45 12	04 09	Sab			14.86								0.006
IC 3806	12 46 37.2	15 09 54	Sa:			14.48	3173	15	2.5	0.4	69	101	0.038	0.006
UGC 7976	12 46 42	04 56	S			14.68	2661	5	6.8	0.7	76	99	0.098	0.007
NGC 4733	12 48 35.9	11 11 03	SB0$_2$/a	908	23	12.63								0.004
NGC 4746	12 49 25.2	12 21 18	Sc	1767	39	13.34	1780	10	16.2	2.3	329	356	0.060	0.007
UGC 8015	12 50 24	10 16	Sb(r)I			13.95								0.0034
NGC 4762	12 50 25.2	11 30 05	S0$_1$(10)	984	11	11.26								0.004
NGC 4765	12 50 42.4	04 44 10	Sd: III	770	29	13.13	724	5	18.6	1.7	83	119	0.230	0.020
NGC 4791	12 52 12	08 19				14.56								0.009
UGC 8032	12 52 12	13 30	S0$_1$(8)			13.87								0.009
NGC 4796	12 52 36	08 20	S	2775	75	13.98	2761	10	8.2	1.7	284	310	0.044	0.006
NGC 4803	12 53 06	08 30				13.99								0.006
UGC 8056	12 53 48	10 28	SBc			14.55	2701	10	11.6	1.4	194	231	0.076	0.007
UGC 8085	12 55 48	14 50	Sb II			14.37	2047	10	18.8	0.82	205	255	0.120	0.004
UGC 8089	12 56 00	09 48	Sdm			14.56								0.008
IC 840	12 56 12	10 53	Sbc I			14.46								0.006
UGC 8093	12 56 18	09 55	Sbc(r)II			14.59								0.007
UGC 8114	12 57 54	13 57	SBc II-III			14.72	1990	10	8.4	0.71	119	157	0.077	0.006
UGC 8192	13 03 48	10 38	Sab			14.27	934	5	4.3	0.32	54	78	0.081	0.006

TABLE II. — *Galaxies with optical radial velocities outside the search range.*

Name	Coordinates (1950.0) R.A.	Dec.	Type	v_{opt}	B_T	S_{rms}
NGC 3996	$11^h 55^m 12^s.3$	14° 34′ 31″	Sb I	6989± 30	$14^m.16$	0.006
NGC 4029	11 57 29.3	08 27 38	S(B)b:	6144 29	14.26	0.006
UGC 7032	12 00 53.4	16 45 53	Sa I	4048 29	14.51	0.014
NGC 4166	12 09 37.0	18 02 08	Sa(s)I	6954 32	13.88	0.007
IC 3107	12 15 14.2	11 07 23	Sbc(s)I-II	7299 32	14.21	0.005
IC 3128	12 16 10.2	11 59 54	Double	11590 30	14.59	0.007
NGC 4296	12 18 55.1	06 55 53	$dSB0_1(3)$	4227 24	13.54	0.006
IC 3209	12 19 33.0	12 00 54	Sbc(s)I-II	7531 20	14.75	0.006
NGC 4334	12 20 51.2	07 45 04	Sab(s)II	4382 100	13.93	0.008
IC 3331	12 23 36	12 05 12	dS0(5)	13929 102	14.68	0.008
IC 3609	12 36 07.8	14 37 00	Sb	9169 30	14.86	0.007
NGC 4685	12 44 42.6	19 44 11	S0 pec	6760 24	13.61	0.007

Notes to Table 2:

NGC 4029: Later spectrum at optical velocity gives S_{rms} = 0.014 Jy

UGC 7032: Later spectrum at optical velocity gives S_{rms} = 0.016 Jy

TABLE III. — *Catalogue of basic optical and HI data for Virgo cluster galaxies.*

Name (1)	R.A. (2)	Dec. (3)	Type (4)	v_{opt} [km s^{-1}] (5)	(6)	B_T (7)	Log D_0 (8)	Log r_0 (9)	v_{HI} [km s^{-1}] (10)	(11)	$\int S * dv$ [Jy · km s^{-1}] (12)	(13)	Δv_{50} [km s^{-1}] (14)	Δv_{20} (15)	S_{max} [Jy] (16)	S_{rms} (17)
UGC 6913	11^h 53^m 42^s	17° 18′	Sb			$14^m.70$	1.22	0.27								0.005
NGC 4012	11 55 54	10 18	Sb II			14.27	1.33	0.56								0.005
NGC 4014	11 56 01.5	16 27 22	Sb II	3775	24	13.41	1.29	0.21	3773	7	12.1	3.0	403	447	0.020	0.004
A1158+14	11 58 09	14 18				13.95			1483	15			154			0.003
IC 755	11 58 36.4	14 23 05	SBb	1501	35	13.61	1.43	0.61	1509	5	11.0	1.3	190	220	0.093	0.008
NGC 4037	11 58 49.9	13 40 48	SBc(s)II.3	933	15	12.98	1.43	0.06	932	5	4.5	1.0	88	106		
UGC 7016	11 59 48	15 07	Sb			14.75	1.22	0.55								0.006
NGC 4049	12 00 20.5	19 01 53	S	839	25	14.20	1.06	0.10	829	10	3.7	0.43	86	115	0.047	0.006
NGC 4067	12 01 37.3	11 08 00	SBc(r)	2403	25	13.32	1.18	0.13	2424	6	4.5	1.7	239	280		
NGC 4064	12 01 37.9	18 43 15	SBc(s):	1033	47	12.22	1.65	0.36	913	10	1.2	0.3	178	207		
IC 2990	12 02 04.2	11 18 48				14.63										0.007
NGC 4078	12 02 14.2	10 52 27	$S0_1$(6)	410	150	14.08	1.20	0.49								0.006
NGC 4082	12 02 36.0	10 55 48	S			14.69	0.85	0.54								0.008
UGC 7100	12 04 12	17 59	Sc I-II			14.66	1.29	0.66								0.007
NGC 4110	12 04 30	18 48	SBbc(rs)I			14.58	1.10	0.21								0.009
NGC 4124	12 05 35.8	10 39 27	$S0_3$(6)	1666	29	12.04	1.66	0.42			≤0.66					
UGC 7133	12 06 48	19 16	SBd(s)II			14.70	1.22	0.18	2267	10	7.0	1.3	196	215	0.045	0.007
IC 3021	12 07 24	13 18	Sa:			14.43	1.26	0.23	2392	15	5.9	1.9	356	420	0.025	0.005
IC 3025	12 07 52.8	10 26 48	d:S0(4)			14.75	0.92	0.31								0.008
NGC 4152	12 08 03.8	16 18 45	Sc(r)I.4			12.46	1.37	0.09	2165	5	24.5	5.6	215	244	0.113	0.027
IC 3029	12 08 10.8	13 36 00	SBc(s)I			14.75	1.19	0.57								0.007
IC 767	12 08 37.2	12 22 48	E3			14.20	0.87	0.22								0.006
NGC 4158	12 08 37.2	20 27 18	Sa:	2456	16	13.00	1.31	0.05	2454	10	8.5	3.0	282	320	0.057	0.011
IC 3033	12 08 40.2	13 50 48	Sc			14.65	1.10	0.16	263	5	4.0	0.9	110	125	0.046	0.006
IC 3032	12 08 40.2	14 32 48	d:E0			14.67	0.65	0.08								0.007
UGC 7186	12 08 49.0	18 17 33	Sm/Im			15.6	1.26	0.78								0.018
IC 768	12 09 13.8	12 25 12	Sc(s)II-III			14.28	1.22	0.27								0.007
UGC 7194	12 09 24	16 30	Sb(r)I-II			14.68	1.07	0.00								0.006
UGC 7200	12 09 42	12 46	Sm			14.18	1.26	0.07								0.018
IC 769	12 09 58.5	12 24 06	Sb(r)I			13.17	1.40	0.15	2210	10	16.5	3.5	242	271		
IC 3040	12 10 01.2	11 21 12	Sm III-IV			15.04										0.010
IC 3039	12 10 04.2	12 34 54	Sc			14.71	1.02	0.45								0.007
NGC 4178	12 10 13.1	11 08 30	SBc(s)II			11.89	1.70	0.40	378	3	68.1	9.9	243	306	0.280	
IC 3044	12 10 15.5	14 15 16	Sc(s)I-II pec			13.98	1.33	0.34								0.006
NGC 4180	12 10 28.9	07 19 01	Sb:	2120	13	13.35	1.26	0.39	1977	20	2.1	0.4	82	193	0.019	0.004
UGC 7230	12 11 06	16 24	Sc + Sc			14.43	1.23	0.31								0.008
NGC 4189	12 11 13.9	13 42 17	SBc(sr)II.2			12.51	1.39	0.06	2208	6	15.0	3.0	258	285	0.070	
NGC 4192	12 11 15.4	15 10 23	Sb II:			10.92	1.98	0.48	-139	4	78.0	9.9	456	471	0.190	
NGC 4193	12 11 20.6	13 27 08	Sc(s)II	2464	20	13.16	1.36	0.27	2477	6	8.0	0.9	338	360	0.028	0.002
NGC 4186	12 11 33.8	15 00 17	dSa(r)	2090	100	14.42	1.15	0.11								0.006
UGC 7239	12 11 36	08 03	Sd III			13.68	1.40	0.03	1227	9	5.0	0.5	129	159	0.060	
UGC 7249	12 12 00	13 05 24	Sc pec			14.76	1.19	0.40	624	4	6.4	0.8	129	142	0.051	0.009
NGC 4197	12 12 04.9	06 05 01	Scd	2082	32	13.47	1.55	0.73	2066	5	24.0	2.3	269	293	0.110	0.008
NGC 4200	12 12 11.0	12 27 32	$S0_1$(4)	2347	28	13.85	1.25	0.26								0.009
IC 3059	12 12 23.0	13 44 13	SBd(s)III			14.23	1.24	0.07								0.018
IC 3060	12 12 28.8	12 49 24	Sab			14.64	1.02	0.24								0.007
UGCA 275	12 12 30	09 52	Im			16.	0.90	0.00								0.018
IC 3061	12 12 30	14 18 30	Sc(s)II	2263	180	14.33	1.36	0.61								0.018
IC 3063	12 12 40.2	12 16 54	S pec			14.81	1.03	0.27								0.007
IC 771	12 12 40.2	13 27 54	SBc(s)II			14.56	1.02	0.07								0.007
NGC 4206	12 12 43.7	13 18 10	Sbc(s):			12.81	1.72	0.63	703	5	36.8	2.0	277	295	0.020	0.009
IC 3065	12 12 45.0	14 40 54	$S0_{1,2}$(4)			14.40	1.02	0.24								0.006
A1212+06[1]	12 12 46.2	06 02 24				15.25	0.70		2029		2.1	0.4	63	83	0.245	
NGC 4207	12 12 57.1	09 51 46	Sc pec	616	18	13.48	1.26	0.26	598	5	7.3	0.9	193	226	0.033	0.005
UGC 7269	12 13 00	15 17	Dwarf			16.	1.00	0.05								0.015
IC 3073	12 13 06	13 53	dS0 ?			14.95	1.03	0.09								0.007
NGC 4212	12 13 06.4	14 10 45	Sc(s)II-III			11.86	1.48	0.16	-82	10	7.0	1.5	259	282		
IC 3074	12 13 12	10 58 36	Sc			14.41	1.36	0.61	1978	20	18.8	4.2		248		
NGC 4216	12 13 20.3	13 25 38	Sb(s)II			10.97	1.92	0.58	139	6	35.7	9.9	514	546	0.075	
NGC 4215	12 13 21.4	06 40 47	$S0_{1,2}$(9)	2073	21	13.12	1.29	0.41			≤0.49					
A1213+04	12 13 24	04 56	Merger ?			14.29	0.95	0.35	2175	10	3.8	0.6	106	151	0.050	0.008
IC 3080	12 13 30	14 28	SBa			14.87	0.87	0.10								0.007
IC 3078	12 13 34.2	12 55 54	Sb(r)I			14.69	0.72	0.00								0.005
NGC 4222	12 13 49.9	13 35 11	Sc			13.91	1.52	0.77	224	5	12.0		222	249	0.070	
NGC 4224	12 14 00.4	07 44 20	Sa	2442	74	12.91	1.38	0.36	2603	10	4.0		495	541		

TABLE III *(continued)*.

Name (1)	R.A. (2)	Dec. (3)	Type (4)	v_{opt} [km s^{-1}] (5)	(6)	B_T (7)	Log D_0 (8)	Log r_0 (9)	v_{HI} [km s^{-1}] (10)	(11)	$\int S * dv$ [Jy · km s^{-1}] (12)	(13)	Δv_{50} [km s^{-1}] (14)	Δv_{20} (15)	S_{max} [Jy] (16)	S_{rms} (17)
IC 3093	12^h 14^m $15^s.0$	14° 31′ 54″	Sc			$14^m.67$	0.57	0.22								0.006
IC 3094	12 14 25.2	13 54 .12	dS ?	-169	34	14.44	0.90	0.08								0.006
IC 3096	12 14 27.0	14 45 54	Sc:			14.63	1.25	0.60								0.006
IC 3097	12 14 28.2	09 41 00	dE5 pec			14.76	0.87	0.30								0.006
UGC 7307	12 14 30	10 17	Im			16.5	1.18	0.00	1188	10	6.1	1.2		87	0.190	
NGC 4233	12 14 33.4	07 54 03	SB0_1(6)pec	2224	188	12.97	1.37	0.33								0.004
NGC 4234	12 14 35.3	03 57 38	SBc III.4	2143	90	13.37	1.11	0.02	2021	15	3.8	0.66	110	168	0.038	0.006
NGC 4235	12 14 35.7	07 28 11	Sa(s)	2596	18	12.61	1.63	0.60	2410	30	4.4	1.5	273	344	0.018	0.008
IC 3099	12 14 37.8	12 43 48	Scd	2246	60	14.90	1.33	0.83	2130	10	7.0	1.5	211	235	0.041	0.007
NGC 4237	12 14 38.2	15 36 08	Sc(r)II.8	916	15	12.54	1.36	0.16	863	4	4.5	1.4	249	271	0.041	0.005
NGC 4239	12 14 42.3	16 48 35	S0_1(5)	946	17	13.35	1.28	0.19								0.004
NGC 4241	12 14 52.1	06 58 05	Sa	2235	25	13.00	1.39	0.25								0.008
A1214+17	12 14 54	17 55				14.35										0.009
IC 3105	12 15 06	12 40	SBm II			14.24	1.26	0.50	-162	20	8.6	0.4	89	129	0.056	
A1215+13	12 15 12	13 27	Sc(s)I			14.61	0.87	0.10								0.006
IC 3109	12 15 16.2	13 24 54				14.72										0.006
NGC 4249	12 15 27.0	05 51 54	S0_1(0)			14.48	0.70									0.007
IC 3115	12 15 26.4	06 55 53	SBbc(s)I-II	2261	23	13.82	1.23	0.09	731	3	10.0	0.9	119	140	0.100	0.006
IC 3118	12 15 33.0	09 46 36	dS0(6)			14.54	1.22	0.27								0.006
IC 773	12 15 34.8	06 24 36	SBb(s)			14.28	1.26	0.28								0.006
NGC 4254	12 16 16.9	14 41 46	Sc(s)I.3	2413	10	10.77	1.73	0.05	2417	5	103.2	9.9	222	268	0.406	0.006
IC 3131	12 16 18.0	08 08 18	d:S0_1(0)			14.30	1.08	0.00								0.006
NGC 4255	12 16 22.6	05 03 51	S0_1(6)	1696	50	13.61	1.17	0.29								0.006
IC 3134	12 16 24.0	09 14 12	Sa			14.62	0.95	0.38	2376	10	2.5	1.0	173	246	0.022	0.007
IC 3136	12 16 25.0	06 27 45	Sc(s)II			14.86	1.06	0.51								0.007
IC 776	12 16 27.0	09 06 24	Sc(s)II-III			14.01	1.33	0.25	2464	40	12.1	3.2		205		
IC 3142	12 16 33.6	14 15 00	Sd or Im			14.80	0.95	0.38								0.007
NGC 4257	12 16 33.8	06 00 09	Sa			14.91	1.08	0.49								0.006
UGC 7354	12 16 36.2	04 08 01	E3:			14.78	0.81	0.07	1519	4	2.3	0.3	40	70	0.040	
A1216+14	12 16 41.7	14 09 35	Compact			16.	0.70		-232	3	2.3	0.6	77	95	0.033	
IC 3147	12 16 42	12 20	S + E			14.95	1.02	0.25								0.006
NGC 4260	12 16 48.8	06 22 40	SBa(s)	1846	74	12.68	1.42	0.28	1958	30	3.0	1.5	465	480	0.020	0.008
NGC 4261	12 16 49.5	06 06 15	E3	2200	34	11.38	1.59	0.08							≤0.215	
IC 3151	12 16 58.2	09 41 00	SBa(r)I			14.63	0.95	0.30								0.006
NGC 4262	12 16 58.3	15 09 23	SB$0_{2,3}$(4)			12.38	1.34	0.03	1360	15	7.2	1.3	440	425	0.125	
NGC 4264	12 17 02.8	06 07 25	SBa(s)	2633	100	13.86	1.03	0.08								0.008
NGC 4266	12 17 10.2	05 49 00	Sa			14.51	1.32	0.61								0.006
IC 3155	12 17 12	06 16	S0_1(6)	2045	100	14.89	1.03	0.28	2292	25	2.4	0.6	374	406	0.021	0.005
IC 3156	12 17 12.0	09 25 36	SBc(s)			14.51	0.83	0.15								0.005
NGC 4267	12 17 13.1	13 04 36	SB0_1	1009	13	11.78	1.54	0.03			≤3.0					
NGC 4268[2]	12 17 13.9	05 33 41	S0_2(6)	2318	100	13.76	1.21	0.41	2373	10	10.2	1.2	156	318	0.060	0.006
NGC 4270	12 17 15.4	05 44 31	S0_1(6)	2347	50	13.17	1.34	0.35			≤3.0					
NGC 4269	12 17 15.8	06 17 41	S0_1(2)	2535	100	13.69	1.19	0.17								0.007
NGC 4273	12 17 22.3	05 37 27	SBc(s)II			12.37	1.36	0.17	2373	5	18.5	1.6	255	303	0.104	0.007
UGC 7383	12 17 28.8	08 52 54	SBc(r)I.2			14.46	1.10	0.16								0.006
NGC 4276	12 17 34.7	07 58 10	Sc(s)II	2628	21	13.25	1.24	0.00	2611	5	3.9	0.6	115	132	0.040	0.009
IC 781	12 17 36	15 14	dS0_1(4)			14.61	1.02	0.19								0.006
RMB 80	12 17 37.8	08 55 12	Sc(s)II			14.60	1.08	0.12								0.007
IC 3167	12 17 46.8	09 49 24	dSB0(3) or dE3pec			14.64	1.08	0.30								0.0056
A1217+12	12 17 48	12 28		272	30	16.	0.70				≤10.3					
NGC 4281	12 17 48.4	05 39 51	S0_3(6)	2711	20	12.26	1.49	0.31			≤3.0					
IC 3170	12 17 55.2	09 42 00	SBc(s)I-II			14.51	0.65	0.00								0.006
IC 3175	12 17 58.2	10 07 00	Sb(r)II			14.86	0.80	0.52								0.005
NGC 4287	12 18 12	05 55	S			14.65	1.18	0.70								0.007
NGC 4289	12 18 28.8	03 59 48	Sb	2500	50	14.34	1.59	0.93	2541	5	17.1	3.2	358	375	0.092	0.009
NGC 4293	12 18 41.1	18 39 36	Sa pec	933	38	11.22	1.78	0.31			≤4.0					
NGC 4292	12 18 43.1	04 52 25	SB0_2/Sa	2258	25	13.50	1.32	0.18								0.006
NGC 4294	12 18 44.8	11 47 18	SBc(s)II-III			12.61	1.49	0.37	358	5	26.2	2.5	197	228	0.120	
IC 782	12 19 00.0	06 02 30	SB0/Sa(r)			14.60	1.22	0.44								0.007
NGC 4298	12 19 00.4	14 53 03	Sc(s)III			12.12	1.50	0.22	1136	4	12.9		232	273	0.060	
NGC 4301	12 19 04.2	05 02 48	S0(7)/a			14.77	1.14	0.45								0.006
NGC 4299	12 19 08.0	11 46 53	Sd(s)III			12.86	1.24	0.03	234	4	20.4	2.1	101	163	0.126	
NGC 4300	12 19 08.6	05 39 47	Sa(r)	3210	31	13.76	1.19	0.36								0.006
IC 3199	12 19 09.0	10 51 54	RSB0_2(4)			14.89	1.03	0.27								0.006
NGC 4302	12 19 10.2	14 52 43	Sc			12.58	1.72	0.66	1150	3	25.7		360	383	0.085	

TABLE III *(continued)*.

Name (1)	R.A. (2)	Dec. (3)	Type (4)	v_{opt} [km s^{-1}] (5)	(6)	B_T (7)	Log D_0 (8)	Log r_0 (9)	v_{HI} [km s^{-1}] (10)	(11)	$\int S * dv$ [Jy · km s^{-1}] (12)	(13)	Δv_{50} [km s^{-1}] (14)	Δv_{20} (15)	S_{max} [Jy] (16)	S_{rms} (17)
UGC 7421	12^h 19^m 18^s	12° 14′	Dwarf			$16^m.5$	1.04	0.44								0.015
NGC 4303	12 19 21.4	04 44 58	Sc(s)I.2			10.19	1.78	0.04	1567	3	99.8	9.9	157	180	0.667	0.040
NGC 4305	12 19 31.4	13 01 03	Sa(s)I	1876	13	13.32	1.34	0.23								0.005
NGC 4307	12 19 32.4	09 19 17	Sb ?	1052	27	12.79	1.57	0.60	1092	22	1.3		373	393		
NGC 4309	12 19 38.9	07 25 20	SBa pec	1056	26	13.59	1.31	0.23	869	30	4.2	0.9	138	231	0.024	0.003
UGC 7439	12 19 54	04 50	Sc III			13.61	1.22	0.06	1277	5	21.6	0.7	118	140	0.200	0.006
NGC 4312	12 19 59.4	15 48 58	Sab(rs):	146	26	12.59	1.67	0.05	153	7	1.8		208	227		
NGC 4313	12 20 05.6	12 04 51	Sab	1436	22	12.73	1.59	0.54	1443	6	1.9		263	274		0.0055
A1220+12	12 20 06	12 26				16.	0.70				≤2.6					
IC 3225	12 20 07.2	06 57 06	Scd III			14.36	1.26	0.37	2369	10	7.6	0.9	130	226	0.053	0.007
NGC 4316	12 20 10.0	09 36 33	Sbc I-II	1262	28	13.70	1.43	0.65	1254	5	11.0	1.6	310	330	0.049	0.005
NGC 4318	12 20 10.6	08 28 33	E3	1215	17	14.14	1.01	0.12	-338	10	1.77	0.55	204	273	0.024	0.010
NGC 4321	12 20 23.2	16 06 00	Sc(s)I			10.13	1.84	0.05	1568	3	58.5	9.9	253	274	0.230	
NGC 4320	12 20 25.2	10 49 24	Merger ?			14.76	1.07	0.31								0.011
NGC 4322[3]	12 20 30.6	16 10 54	dE5			14.88	1.12	0.09	1524	10	16.0	3.0	88	195	0.011	0.007
NGC 4324	12 20 32.5	05 31 36	Sa(r)			12.34	1.39	0.32	1659	8	10.0	2.8	306	322	0.060	0.009
NGC 4325	12 20 33.0	10 53 36	E4			14.40	1.08	0.20								0.006
NGC 4330	12 20 44.0	11 38 43	Sd	1573	17	13.10	1.63	0.62	1575	15	8.4	0.9	249	304	0.041	0.003
NGC 4336	12 20 58.1	19 42 16	SBa(r)	1134	34	13.61	1.22	0.22								0.009
NGC 4339	12 21 01.3	06 21 32	$S0_{1,2}$(0)	1287	20	12.35	1.37	0.01			≤2.75					
IC 3255	12 21 03.0	09 54 54	SBb(s)I			14.44	0.68	0.11								0.007
NGC 4340	12 21 03.7	17 00 06	$SB0_2$(r)	930	10	11.93	1.61	0.10			≤4.0					
NGC 4343	12 21 05.0	07 13 58	Sb			13.14	1.44	0.51	1014	5	4.9	0.7	329	348	0.025	
NGC 4342	12 21 05.8	07 19 56	E7	714	50	13.45	1.15	0.31			≤4.9					
UGC 7464	12 21 06	03 14	Sc(s)II-III			14.80	1.22	0.65								0.007
NGC 4344	12 21 06.1	17 49 05	S pec	1247	34	13.21	1.29	0.04	1131	20	1.9	0.4	73	142	0.020	0.004
IC 3258	12 21 11.9	12 45 23	SBm(s) pec			13.75	1.21	0.04	-432	4	3.3	0.6	84	101	0.038	0.004
NGC 4341	12 21 19.7	07 23 06	$S0_1$(8)	1103	100	14.11	1.27	0.41								0.006
NGC 4350	12 21 26.4	16 58 11	$S0_1$(8)	1241	19	11.88	1.50	0.44			≤3.3					
NGC 4353	12 21 27.4	08 03 44	Sc(s)II-III	1060	100	13.94	1.11	0.18								0.005
NGC 4351	12 21 29.5	12 29 01	SBab(rs) pec			13.04	1.31	0.15	2293	10	5.2	1.5	96	114	0.090	
NGC 4352	12 21 32.2	11 29 45	$S0_1$(8)	2106	22	13.61	1.29	0.34								0.0037
IC 3267	12 21 32.8	07 19 10	Sc(s)II.2	2131	100	14.20	1.04	0.01	1231	15	0.9	0.2	57	78	0.019	0.004
RMB 109	12 21 36.0	09 39 30	$S0_1$(0)			14.69	0.60	0.12								0.008
NGC 4356	12 21 37.8	08 47 54	Sc	1165	30	14.04	1.41	0.64								0.006
IC 3271	12 21 38.4	08 13 36	Sc I			14.37	1.07	0.00	3365	16	3.36	0.57	287	387	0.014	
A1221+04	12 21 40.8	04 30 00	E4:	957	44	14.83	1.17	0.48	1175		1.3	0.5	170	204	0.010	
IC 3274	12 21 43.2	09 32 30	S0:			14.68	0.80	0.30								0.009
NGC 4365	12 21 55.0	07 35 43	E3	1235	11	10.60	1.79	0.13			≤0.5					
NGC 4370	12 22 21.9	07 43 15	Sa	748	35	13.69	1.21	0.25			≤3.5					
NGC 4371	12 22 22.8	11 58 53	$SB0_{2,3}$(r)(3)	943	19	11.74	1.59	0.20			≤3.0					
NGC 4374	12 22 31.5	13 09 51	E1	1000	8	10.23	1.70	0.06			≤2.2					
IC 3298	12 22 31.8	17 18 54	SBc			14.91	1.03	0.56	2474	25	0.8	0.2	65	102	0.011	0.004
NGC 4377	12 22 40.6	15 02 28	$S0_1$(3)	1371	14	12.82	1.26	0.08			≤3.3					
IC 3303	12 22 42.8	12 59 29	E4	-214	30	14.46	1.14	0.19								0.009
NGC 4379	12 22 43.0	15 53 03	$S0_1$(2)	1069	10	12.30	1.32	0.06			≤3.9					
NGC 4378	12 22 44.3	05 12 13	Sa(s)			12.16	1.52	0.03	2553	5	12.9	3.0	339	367	0.042	0.008
NGC 4376	12 22 45.1	06 01 06	Scd(s)III	1156	35	13.69	1.22	0.22	1136	10	4.4	0.8	134	156	0.042	0.006
NGC 4380	12 22 49.6	10 17 33	Sab(s)	963	7	12.36	1.57	0.22	968	15	3.2	0.5	237	288	0.027	0.003
NGC 4382	12 22 53.2	18 28 03	$S0_1$(3) pec	772	3	10.10	1.85	0.13			≤0.4					
NGC 4383	12 22 53.8	16 44 48	Amorphous	1693	15	12.68	1.34	0.26	1711	10	44.4	4.5	209	232		0.007
IC 3311	12 23 00	12 32	Sdm	-257	20	14.55	1.33	0.70								0.018
NGC 4387	12 23 09.6	13 05 18	E5	573	24	13.02	1.27	0.21								0.007
IC 3322 A	12 23 09.9	07 29 36	SBcd(s):			13.76	1.55	0.81	996	7	24.7	2.7		293	0.120	
NGC 4388	12 23 14.8	12 56 18	Sab	2487	36	11.86	1.71	0.56	2541	10	8.8	2.5		377	0.045	
NGC 4390	12 23 17.6	10 44 13	Sbc(s)II	1118	43	13.27	1.26	0.10	1105	7	7.2	0.7	132	155	0.056	0.005
IC 3322	12 23 18	07 50 00	Sm	1178	100	14.14	1.40	0.63								0.018
A1223+15	12 23 18	15 13		462	30	16.	0.70				≤6.7					
NGC 4394	12 23 24.7	18 29 30	SBb(sr)I-II	944	10	13.27	1.59	0.04	929	7	7.0	3.2	162	190	0.060	0.020
IC 3328	12 23 25.8	10 19 42	dE1			14.42	0.95	0.08								0.006
NGC 4396	12 23 27.5	15 56 55	Sc(s)II	-157	19	13.02	1.55	0.47	-126	3	13.9	3.6	184	198		0.018
NGC 4402	12 23 35.8	13 23 22	Sc			12.59	1.61	0.49	234	5	8.0		254	285		
NGC 4405	12 23 35.8	16 27 26	Sc(s)/Sa	1822	40	12.99	1.30	0.16	1845	25	4.9	0.8	334	402	0.021	0.003
NGC 4406	12 23 39.7	13 13 25	$S0_1$(3)/E3	-227	8	10.02	1.87	0.13			≤2.5					
IC 789	12 23 49.8	07 44 54	SB0/a			14.71	1.10	0.29								0.006

TABLE III *(continued)*.

Name (1)	R.A. (2)	Dec. (3)	Type (4)	v_{opt} [km s^{-1}] (5)	(6)	B_T (7)	Log D_0 (8)	Log r_0 (9)	v_{HI} [km s^{-1}] (10)	(11)	$\int S * dv$ [Jy · km s^{-1}] (12)	(13)	Δv_{50} [km s^{-1}] (14)	Δv_{20} (15)	S_{max} [Jy] (16)	S_{rms} (17)
NGC 4411 A	$12^h\ 23^m\ 56^s.1$	09° 09′ 01″	Sc(r)I			$13^m.43$	1.35	0.04	1279	7	7.0	2.9		122	0.062	
NGC 4413	12 23 59.7	12 53 11	SBab			12.97	1.39	0.17	100	9	3.4	1.4	144	171		
NGC 4412	12 24 02.6	04 14 33	SBbc(s)II	1735	15	13.14	1.18	0.04	2301	15	4.2	0.8	107	151	0.044	0.005
IC 3344	12 24 06.0	13 50 42	dE6 or $S0_1$(6)			14.70	0.95	0.38								0.007
NGC 4415	12 24 08.3	08 42 47	E1	858	36	13.72	1.17	0.03			≤1.7					
RMB 143	12 24 10.8	09 19 12	SBa(s)			14.75	0.80	0.12								0.008
NGC 4416	12 24 14.5	08 11 51	SBc(s)II.2	1380	23	12.89	1.26	0.05	1391	5	5.0	0.8	140	171	0.039	0.005
NGC 4411 B	12 24 14.7	09 09 38	Sc(s)I			12.93	1.43	0.00	1269	4	7.2	4.4		102	0.096	
NGC 4417	12 24 18.0	09 51 38	$S0_1$(7)	832	19	12.07	1.56	0.40			≤5.8					
IC 3355	12 24 18.0	13 27 13	SBm III-IV	80	69	14.98	1.12	0.35								0.018
IC 3356	12 24 19.2	11 49 54	dIm V			14.49	1.22	0.15	1099	3	17.4	3.2	72	90	0.023	
IC 3358	12 24 24	11 56	dE3	2064	32	14.23	1.17	0.08								0.018
NGC 4420	12 24 24.6	02 46 15	Sc(s)III			12.67	1.35	0.28	1683	5	14.5	2.4	190	208	0.090	0.008
NGC 4419	12 24 25.1	15 19 28	SBab:			12.13	1.53	0.43	-240	30	1.8	0.5		321	0.010	
NGC 4421	12 24 30.8	15 44 19	SB0(s)/a	1603	23	12.50	1.43	0.08			≤3.0					
NGC 4423	12 24 36.2	06 09 23	Im			14.28	1.35	0.71	1092	25	16.2	5.1		187		
IC 792	12 24 37.2	16 36 18	Sc(s)II			14.61	1.26	0.43								0.005
NGC 4424	12 24 39.0	09 41 51	S(a?) pec			12.32	1.57	0.29	440	4	3.0	0.5	60	90	0.040	0.005
NGC 4425	12 24 41.3	13 00 45	SB0pec or Sa	1883	50	12.68	1.53	0.44			≤2.6					
IC 3365	12 24 42	16 12	Sd III-IV			14.17	1.33	0.22	2336	10	7.0	1.6		131	0.035	
IC 3369	12 24 43.2	16 19 00	dE6 or $S0_1$(6)			14.81	0.87	0.22								0.007
UGC 7557	12 24 47.8	07 32 18	Sc			13.58	1.49	0.08	933	4	24.6	1.3	156	168	0.019	
NGC 4430	12 24 53.6	06 32 23	SBc(r)II	1472	19	12.48	1.43	0.05	1443	5	7.5	1.0	120	177	0.064	0.009
UGC 7567	12 24 54	07 55	Sm IV			14.85	1.07	0.18								0.018
NGC 4429	12 24 54.1	11 23 05	$S0_3$(6)/Sa pec	1130	13	11.14	1.74	0.33			≤2.8					
NGC 4431	12 24 54.6	12 34 03	$dS0_1$(5)	875	29	13.67	1.30	0.18								0.004
A1224+09	12 24 58.2	09 52 00	Im V			14.5										0.006
NGC 4432	12 25 00.0	06 30 00	Sc(s)I-II			14.81	1.03	0.14								0.008
NGC 4434	12 25 04.2	08 25 53	$S0_1$(0)/E0	1052	24	12.99	1.20	0.00								0.004
NGC 4435	12 25 08.6	13 21 23	$SB0_1$(7)	775	15	11.72	1.47	0.18			≤2.9					
NGC 4436	12 25 09.6	12 35 35	dE6/dS0(6)	1324	30	14.03	1.27	0.32								0.006
A1225+08	12 25 09.0	08 48 48	dE5 or Im IV-V			16.1										0.012
NGC 4438	12 25 13.5	13 17 11	Sb pec			10.91	1.97	0.38	30	10	7.7	3.3	353	390	0.020	
NGC 4440	12 25 21.2	12 34 10	SBab(s)I	724	18	12.66	1.30	0.07			≤1.2					0.0019
RMB 71	12 25 23.4	12 38 42	dE			16.0										0.013
NGC 4442	12 25 31.3	10 04 53	$SB0_1$(6)	517	19	12.74	1.66	0.37			≤3.2					
NGC 4445	12 25 43.0	09 42 48	Sab:	322	30	13.65	1.45	0.65			≤5.1					
RMB 169	12 25 49.2	09 00 24	Sbc(s)I.8			14.74	1.19	0.51	1118	5	15.6	1.3	165	181	0.106	0.008
IC 3388	12 25 54	13 06	dE4	1873	112	15.31	0.83	0.26								0.008
IC 3391	12 25 55.6	18 41 32	Sc(s)II	1739	37	14.04	1.07	0.08	1708	20	1.9	0.65	108	135	0.025	0.006
NGC 4450	12 25 58.0	17 21 40	Sab pec			10.95	1.37	0.33	1955	5	5.9	0.6	309	324	0.019	
UGC 7596	12 26 00	08 54	Dwarf			15.3	1.22	0.40								0.015
NGC 4451	12 26 08.1	09 32 05	Sc(s)III	876	39	13.35	1.17	0.15								0.006
NGC 4452	12 26 11.3	12 01 56	$S0_1$(10)	212	42	13.30	1.38	0.58			≤1.3					0.0011
IC 3392	12 26 12.0	15 16 40	Sc/Sa	1678	28	13.30	1.37	0.33								0.005
IC 3393	12 26 16.2	13 11 00	dE7	400	60	14.82	1.13	0.41								0.007
NGC 4458	12 26 25.9	13 31 10	E1	1951	17	12.93	1.28	0.02			≤2.4					
NGC 4457	12 26 26.0	03 50 51	RSb(rs)II			11.64	1.48	0.08	894	23	3.7	0.6		132		
NGC 4459	12 26 28.3	14 15 20	$S0_3$(3)	1210	16	11.49	1.58	0.13			≤3.4					
UGC 7612	12 26 29.0	02 59 53	SBm: V			14.13	1.34	0.26	1571	15	19.2	3.5	159	193	0.060	
NGC 4461	12 26 31.1	13 27 43	Sa	1919	16	12.10	1.57	0.38			≤3.1					
A1226+11	12 26 42	11 58		160	30	16.	0.70				≤5.7					
NGC 4464	12 26 48.1	08 26 05	E4	1199	50	13.70	1.06	0.10								0.006
NGC 4469	12 26 55.7	09 01 40	Sab	498	10	12.28	1.59	0.42			≤2.7					
IC 3414	12 26 56.2	07 02 50	Sc(s)II	597	49	13.70	1.23	0.20	530	15	5.0	0.7	98	136	0.055	0.007
NGC 4466	12 26 58.0	07 58 22	Sc	1012	100	14.62	1.14	0.46	761	15	2.1	0.6	101	174	0.019	0.004
NGC 4468	12 26 59.6	14 19 33	$S0_1$(3)/a	895	28	13.82	1.18	0.12	2422	30	6.5	1.5	285	567	0.021	0.004
NGC 4470	12 27 05.3	08 05 56	Sa:	2369	30	13.04	1.18	0.12	2339	5	8.4		136	158		
IC 3416	12 27 06	11 04	Im III			14.78	0.95	0.18								0.009
IC 3418	12 27 11.0	11 40 47	Im			16.										0.018
NGC 4472	12 27 13.9	08 16 32	E1/$S0_1$(1)	969	11	9.32	1.95	0.08			≤0.7					
NGC 4473	12 27 17.0	13 42 23	E5	2240	9	11.07	1.65	0.24			≤2.4					
NGC 4474	12 27 21.7	14 20 40	$S0_1$(8)	1610	19	12.37	1.37	0.28			≤2.4					
IC 3425	12 27 24	10 53	Sb(s)I-II			14.31	1.35	0.36								0.006
NGC 4476	12 27 26.7	12 37 27	E5 pec	1958	24	13.08	1.28	0.17								

TABLE III *(continued)*.

Name (1)	R.A. (2)	Dec. (3)	Type (4)	v_{opt} [km s^{-1}] (5)	(6)	B_T (7)	Log D_0 (8)	Log r_0 (9)	v_{HI} [km s^{-1}] (10)	(11)	$\int S*dv$ [Jy · km s^{-1}] (12)	(13)	Δv_{50} [km s^{-1}] (14)	Δv_{20} (15)	S_{max} [Jy] (16)	S_{rms} (17)
UGC 7636	12^h 27^m 30^s	08° 12′	Im III-IV	500:		$14^m.72$	1.10	0.16								0.009
NGC 4477	12 27 30.7	13 54 45	$SB0_{1,2}$/SBa	1353	11	11.46	1.60	0.05			≤2.2					
NGC 4482	12 27 40.8	11 03 12	d:E5	1845	36	13.68	1.28	0.24								0.005
UGC 7642	12 27 42	02 54	Sdm III-IV			14.63	1.07	0.08	1640	5	2.8	0.6	42	64	0.070	0.006
NGC 4478	12 27 45.5	12 36 18	E2	1378	20	12.29	1.31	0.06			≤2.2					
NGC 4479	12 27 46.8	13 51 15	SB0(s):	822	100	13.44	1.26	0.09			≤1.7					
UGC 7644	12 27 48	04 01	Sc			14.44	1.35	0.58								0.008
IC 3432	12 27 51.0	14 25 06	S pec:			14.64										0.006
A1227+14	12 27 52.2	14 15 30	Im V			16.0										0.006
NGC 4480	12 27 53.4	04 31 27	Sb(r)II	2415	21	13.05	1.42	0.26	2449	5	13.6	1.5	190	370	0.067	0.008
IC 3436	12 28 07.8	19 56 06		3365	16	14.35										0.006
NGC 4483	12 28 08.3	09 17 30	$SB0_1$	875	80	13.17	1.25	0.22								0.0044
NGC 4486	12 28 17.8	12 39 58	E0	1258	10	9.62	1.86	0.03							≤0.215	
NGC 4488	12 28 18.9	08 38 17	S0 pec	990	40	12.86	1.56	0.37								0.0035
NGC 4489	12 28 21.1	17 02 05	$S0_1$(1)	930	21	12.84	1.34	0.02								0.0055
NGC 4491	12 28 24.4	11 45 35	$SB0_2$(5)	439	25	13.43	1.28	0.27			≤7.5					
UGC 7658	12 28 25.9	12 32 48	dE3	66	83	14.00	1.03	0.04			≤6.5					
NGC 4492	12 28 27.4	08 21 13	Sa	1801	25	13.17	1.31	0.03								0.005
IC 3446	12 28 51.6	11 46 00	Sm III			14.75	0.85	0.37								0.007
NGC 4497	12 29 00.9	11 54 10	$SB0_1$(5)/SBa	1123	32	13.40	1.36	0.30								0.007
NGC 4496	12 29 06.3	04 12 45	SBc III-IV			11.71	1.57	0.10	1730	5	53.3	4.4	156	182	0.310	0.020
NGC 4498	12 29 08.8	17 07 46	S(B)cd(s)			12.62	1.51	0.23	1506	4	12.5	1.6	188	210	0.075	
IC 3457	12 29 18	12 56	dE3			14.43	1.21	0.13								0.015
IC 797	12 29 22.9	15 24 00	SBc(s)II	2021	17	14.01	1.10	0.16	2091	17	4.1	0.5	131	170	0.030	0.003
IC 3459	12 29 24	12 27	dS0			14.62	1.10	0.03								0.018
NGC 4501	12 29 28.1	14 41 50	Sbc(s)II			10.26	1.84	0.25	2280	5	43.0	7.9	505	540	0.085	0.015
NGC 4502	12 29 31.8	16 57 36	Sm III			14.57	1.13	0.30	1622	10	2.9	1.0	173	192	0.032	0.005
NGC 4503	12 29 34.4	11 27 15	Sa	1342	23	11.97	1.55	0.33			≤4.3					
IC 3466	12 29 36	12 06	Pec	785	20	15.72	0.87	0.22	891	20	2.5	0.5	58	136	0.029	0.005
NGC 4506	12 29 39.3	13 41 51	S pec	681	100	13.64	1.21	0.11								0.005
IC 3474	12 30 03.5	02 56 16	Sd			14.82	1.35	0.93	1732	5	12.6	0.9	146	167	0.095	0.006
IC 3475	12 30 09.5	13 02 54	Im IV or dE2pec			13.88	1.41	0.02	2583	15	1.5	0.26	63	86	0.023	0.0042
IC 3476	12 30 10.8	14 29 36	IBm(s):	-255	10	13.17	1.34	0.06								0.018
UGC 7697	12 30 24	20 27	Sc			14.89	1.33	0.64	2536	5	5.6	1.3	215	226	0.038	0.006
NGC 4516	12 30 36.4	14 51 05	$SB0_{2,3}$(5)	958	40	13.67	1.27	0.23								0.006
IC 3484	12 30 37.2	17 40 00	Sc(s)I			14.89	0.84	0.16								0.008
IC 3483	12 30 38.4	11 37 30	S(B)b pec	108	40	15.7					≤8.8					
NGC 4518	12 30 40.2	08 07 24	$SB0_{2,3}$(r)/a			14.48	1.02	0.37								0.009
IC 3487	12 30 42.0	09 40 06	E5:			14.76	0.95	0.38								0.007
IC 3492	12 30 42.4	13 08 02	Pec	374	220	16.					≤5.7					
A1230+09	12 30 47.4	09 01 30	Dwarf						1320	15			34			0.003
NGC 4519	12 30 58.1	08 55 48	SBc(rs)II.2			12.32	1.49	0.14	1220	5	51.6	2.5	168	212	0.330	0.030
NGC 4522	12 31 07.8	09 27 02	Sc/Sb:			12.73	1.57	0.51	2325	5	7.5	1.4	201	247	0.045	0.007
IC 3501	12 31 16.8	13 35 54	d:E0			14.51	0.83	0.05								0.006
NGC 4523	12 31 17.1	15 26 25	SBdm(s)I			14.42	1.42	0.02	260	4	18.3	4.3	117	139	0.250	0.025
UGC 7715	12 31 24	03 49	dSm			14.63	1.03	0.00								0.015
IC 800	12 31 25.8	15 37 51	SBc pec	2295	23	14.05	1.22	0.12								0.004
NGC 4526	12 31 30.4	07 58 33	$S0_3$(6)	553	12	10.59	1.86	0.49								0.012
NGC 4527	12 31 35.5	02 55 45	Sb(s)II			11.35	1.80	0.44	1735	3	107.2	9.9	359	400	0.350	
IC 3505	12 31 39.0	16 14 00	SBc			14.91	0.99	0.47								0.009
NGC 4531	12 31 44.6	13 21 06	Sa	131	37	12.58	1.47	0.16			≤5.3					
IC 3509	12 31 45.0	12 19 00	E4			14.75	1.02	0.19								0.006
NGC 4532	12 31 46.7	06 44 43	Sm III-IV			12.25	1.46	0.36	2010	5	46.3	9.9	155	224	0.225	0.015
NGC 4535	12 31 47.9	08 28 25	SBc(s)I.3			10.53	1.83	0.13	1958	5	99.0	9.9	267	292	0.350	
IC 3517	12 32 00	09 26	Sd IV			14.51	1.19	0.20								0.009
IC 3520	12 32 00	13 46 54	Scd	1093	70	15.2										0.012
IC 3518	12 32 03.0	09 52 54	dE6pec or dS0(6)			14.64	1.13	0.19								0.009
NGC 4539	12 32 04.4	18 28 40	SBa(s)pec	1287	34	12.86	1.55	0.35			≤2.3					0.0014
IC 3521	12 32 07.0	07 26 13	SBm pec	573	33	13.98	1.07	0.12								0.005
UGC 7739	12 32 12.0	06 34 20	Im V			14.56	1.12	0.01	2057	4	25.6	3.1	100	129	0.095	
IC 3522	12 32 15.0	15 29 48	dIm			16.	1.08	0.30	661	20	10.5	2.7	119	150	0.109	
NGC 4540	12 32 19.9	15 49 41	Scd(s)III-IV			12.49	1.30	0.09	1286	10	7.5	2.1	115	139	0.073	0.020
IC 3530	12 32 25.2	18 04 00				14.81										0.008
NGC 4543	12 32 46.2	06 23 24	E5			14.04	0.83	0.18								0.006
A1232+06	12 32 46.8	06 49 12				14.68										0.007

TABLE III *(continued)*.

Name (1)	R.A. (2)	Dec. (3)	Type (4)	v_{opt} [km s^{-1}] (5)	(6)	B_T (7)	Log D_0 (8)	Log r_0 (9)	v_{HI} [km s^{-1}] (10)	(11)	$\int S * dv$ [Jy · km s^{-1}] (12)	(13)	Δv_{50} [km s^{-1}] (14)	Δv_{20} (15)	S_{max} [Jy] (16)	S_{rms} (17)
NGC 4548	12^h 32^m 55^s.1	14° 46′ 20″	SBb(rs)I-II			11^m.12	1.73	0.09	482	7	10.7	1.1	235	289	0.060	0.015
IC 3540	12 32 55.2	13 01 30	$S0_3$(2)			14.14	0.83	0.09								0.006
NGC 4550	12 32 59.3	12 29 48	E7/$S0_1$(7)	378	14	12.33	1.54	0.51								
NGC 4544	12 33 03.3	03 18 45	Sc	1126	28	13.89	1.33	0.42	1132	15	4.1	1.0	126	206	0.033	0.005
NGC 4551	12 33 06.6	12 32 27	E3	1197	15	12.83	1.30	0.09			≤2.2					
NGC 4552	12 33 08.4	12 49 56	$S0_1$(0)	321	12	10.80	1.62	0.00			≤2.5					
NGC 4561	12 33 38.4	19 35 56	SBc IV			13.10	1.18	0.08	1398	16	22.6	0.8		127	0.175	
IC 3567	12 33 51.0	13 52 00	Sbc(s)II			14.75	0.99	0.07								0.009
NGC 4564	12 33 55.3	11 42 51	E6	1111	18	12.11	1.49	0.35			≤0.28					
NGC 4567[4]	12 34 01.1	11 32 01	Sc(s)II-III			11.78	1.47	0.15	2277	3	≥10.7		201	221	0.055	
NGC 4568[4]	12 34 03.0	11 30 45	Sc(s)II-III			11.42	1.66	0.33	2255	3	≥10.7		328	348	0.075	
IC 3576	12 34 05.2	06 53 47	Sm IV-V			13.70	1.39	0.02	1073	4	18.0	3.4	45	71	0.085	
UGC 7780	12 34 06	03 23	Sm			16.5	1.23	0.75								0.015
IC 3583	12 34 12	13 31 30	Sc IV pec			13.91	1.32	0.28	1125	15	8.1	2.3		160	0.035	
NGC 4569	12 34 18.7	13 26 18	Sab(s)I-II			10.23	1.98	0.31	-232	6	12.4	1.7	342	363	0.075	0.013
NGC 4570	12 34 20.8	07 31 22	$S0_1$(7)/E7	1730	75	11.68	1.61	0.50			≤2.0					
IC 3589	12 34 24	07 13 30	SBm III	1900		14.11	0.95	0.15	1634	4	8.2	0.5	93	115	0.080	0.006
IC 3586	12 34 24	12 47 24	dS0:			14.72	1.13	0.00								0.008
NGC 4571	12 34 25.5	14 29 33	Sc(s)II-III			11.81	1.58	0.05	342	5	13.0	2.3	152	179	0.085	0.006
NGC 4578	12 34 58.7	09 49 48	$S0_{1,2}$(4)	2284	14	12.04	1.56	0.12			≤0.28					
NGC 4576	12 35 00.6	04 38 34	S(B)bc(rs)			14.20	1.15	0.16								0.007
A1235+08	12 35 06	08 50				14.51			1076	4			77			0.003
UGC 7795	12 35 12.0	07 22 40	Sm IV			14.54	1.14	0.10								0.018
NGC 4579	12 35 12.6	12 05 40	Sab(s)II			10.59	1.73	0.09	1518	7	10.0	2.5	361	380	0.035	
NGC 4580	12 35 15.6	05 38 38	Sc/Sa	1033	23	12.61	1.38	0.11	1032	10	1.0		177	204		0.005
IC 703	12 35 22.8	14 34 00	E3			14.68	0.57	0.10								0.007
IC 3602	12 35 39.0	10 21 06	dE6			14.88	1.02	0.50								0.008
NGC 4584	12 35 46.4	13 23 06	Sa(s) pec	1686	9	13.72	1.18	0.11								0.009
NGC 4586	12 35 55.1	04 35 37	Sa	820	21	12.55	1.64	0.43	792	5	2.3		252	267		0.008
NGC 4587	12 36 02.3	02 55 53	E6	901	29	14.04	1.17	0.22								0.006
IC 3608	12 36 06	10 45	Sb I			14.52	1.53	0.84								0.018
NGC 4588	12 36 12	07 02	Sc II-III			14.84	1.16	0.40								0.008
IC 3611	12 36 33.0	13 38 06	Amorphous ?			13.85	1.29	0.21								0.004
IC 3612	12 36 37.8	14 59 12	dS0(6)			14.83	1.07	0.18								0.007
NGC 4591	12 36 39.9	06 17 11	Sb(s)	2450	29	13.70	1.26	0.27	2428	10	6.0	1.5	289	361	0.038	0.005
IC 3617	12 36 53.0	08 14 13	Im			14.67	1.12	0.29	2086	40	7.4	1.5		187	0.070	
IC 3625	12 37 06	11 15	S0:			14.95	0.43	0.08								0.009
IC 3631	12 37 17.1	13 14 53	$S0_1$(5)/Sa	2839	60	14.17	1.03	0.14								0.006
IC 3629	12 37 19.8	13 47 12	Sbc			14.68	0.93	0.45								0.007
NGC 4595	12 37 20.9	15 34 23	Sc(s)II.8			12.92	1.26	0.17	634	5	7.8	1.0	155	161		
NGC 4596	12 37 24.3	10 27 01	$SB0_3$/Sa	1834	29	11.45	1.59	0.14			≤3.7					
NGC 4598	12 37 39.9	08 39 30	$SB0_{2,3}$(2)	1961	23	13.41	1.30	0.05								0.005
IC 3633	12 37 42	10 09	dE4			14.87	0.80	0.12								0.008
NGC 4600	12 37 49.4	03 23 38	$S0_1$(6)	787	34	13.47	1.20	0.15								0.005
IC 3638	12 37 49.8	10 46 12	Sbc(r)II			14.25	0.87	0.10								0.008
IC 3637	12 37 49.8	14 58 12	$dS0_1$(6) pec			14.92	1.38	0.43								0.007
IC 855	12 37 49.8	16 12 30	S0(6)			14.69	0.72	0.15								0.008
IC 3647	12 38 18	10 46	$dS0_1$(3)			14.33	1.26	0.19								0.018
NGC 4606	12 38 26.4	12 11 08	Sa pec	1638	18	12.66	1.44	0.25	1683	8	0.4		188	202		0.007
NGC 4607	12 38 40.9	12 09 36	Scd	2440	100	13.75	1.51	0.61	2259	20	3.3	0.6	210	245	0.020	0.0036
NGC 4608	12 38 41.9	10 25 50	$SB0_3$/Sa	1864	21	12.01	1.50	0.08			≤3.5					
IC 3653	12 38 42	11 39 06		448	100	13.86					≤6.2					
IC 3658	12 38 55.8	14 57 48	dE6			14.85	1.18	0.30								0.008
NGC 4612	12 39 00.6	07 35 22	$RSB0_{1,2}$	1875	22	12.57	1.34	0.08			≤0.32					
A1239+09	12 39 07.2	09 28 42	Im V			16.0										0.013
UGC 7854	12 39 18	09 41	dE6			14.91	1.03	0.20								0.007
IC 3665	12 39 18	11 46	dE5			14.84	1.03	0.14								0.015
NGC 4620	12 39 28.6	13 13 01	$S0_1$/Sa	1214	60	13.17	1.31	0.05								0.004
NGC 4621	12 39 31.2	11 55 15	E5	424	12	10.67	1.71	0.18			≤0.3					
IC 3672	12 39 36	12 01	E	206	26	14.17	1.14	0.00			≤1.0					
IC 810	12 39 36	12 52	$S0_1$(8)	-99	100	14.16	1.30	0.43			≤5.3					
NGC 4623	12 39 38.5	07 57 08	E7	1892	37	13.09	1.42	0.45			≤3.4					
NGC 4630	12 39 58.5	04 14 03	Sbc(s)II-III	697	19	13.14	1.23	0.13	740	5	7.7	0.7	134	159	0.060	0.005
IC 3686	12 40 01.8	10 49 06	Sc(s)II			14.91	0.92	0.34								0.008
NGC 4633	12 40 06.6	14 37 47	Scd(s)	302	14	13.80	1.32	0.35	290	5	11.2	1.2	187	215	0.070	0.007

TABLE III (*continued*).

Name (1)	R.A. (2)	Dec. (3)	Type (4)	v_{opt} [km s^{-1}] (5)	(6)	B_T (7)	Log D_0 (8)	Log r_0 (9)	v_{HI} [km s^{-1}] (10)	(11)	$\int S * dv$ [Jy · km s^{-1}] (12)	(13)	Δv_{50} [km s^{-1}] (14)	Δv_{20} (15)	S_{max} [Jy] (16)	S_{rms} (17)
NGC 4635	12^h 40^m $09^s.4$	20° 13′ 12″	Sc II-III			$13^m.36$	1.31	0.12	981	30	7.8	2.5		212	0.065	
NGC 4634	12 40 09.7	14 34 13	Sc	262	13	13.29	1.38	0.55	118	15	6.5	0.5	255	288	0.040	0.005
NGC 4638	12 40 16.4	11 43 00	$S0_1$ (7)	1147	18	12.05	1.45	0.24			≤3.0					
NGC 4639	12 40 21.7	13 31 56	SBb(r)II			12.19	1.46	0.14	977	6	18.7	2.6	278	313	0.115	0.020
NGC 4637	12 40 22.8	11 42 36	S0:			14.82	1.17	0.27								0.008
NGC 4640	12 40 25.8	12 32 00	SB0(4)/a	2077	75	14.19	1.22	0.15	1931	25	5.5	0.7	233	304	0.024	0.003
NGC 4641	12 40 30.0	12 19 00	Sa pec	2305	100	14.12	1.20	0.15								0.004
NGC 4647	12 41 01.1	11 51 21	Sc(rs)III	1450	39	12.02	1.48	0.09	1415	9	8.1	1.2	190	206	0.040	0.006
IC 3702	12 41 01.8	11 07 12	SBc			14.71	0.57	0.14								0.008
NGC 4649	12 41 09.0	11 49 23	$S0_1$ (2)	1144	15	9.83	1.86	0.01			≤2.1					
NGC 4651	12 41 12.5	16 40 05	Sc(r)I-II			11.30	1.58	0.15	804	8	64.8	9.9	361	392	0.225	0.020
IC 3704	12 41 15.0	11 02 36	Sc(s)			14.68	1.13	0.51								0.006
NGC 4654	12 41 25.7	13 23 58	SBc(rs)II			11.17	1.67	0.20	1036	4	102.7	9.9	295	310	0.238	
IC 3709	12 41 30	09 20	Sbc(r)I-II			14.78	0.90	0.15								0.007
UGC 7906	12 41 36	12 25	dIm			16.5	1.13	0.13								0.015
IC 3714	12 41 55.2	10 26 12	SBb(s)I			14.91	0.92	0.26								0.009
NGC 4659	12 41 59.0	13 46 19	S0/a	267	50	13.08	1.26	0.13			≤3.8					
NGC 4660	12 42 01.1	11 27 51	E5	1097	13	11.87	1.44	0.15			≤3.1					
IC 3718	12 42 15.0	12 37 18	Amorphous	954	100	13.68	1.47	0.39	864	15	1.5	0.5	53	94	0.026	0.005
IC 3720	12 42 16	12 20	dE			16.	1.38	0.20								0.018
IC 3716	12 42 18	08 22	Im III ?			14.91	0.68	0.23								0.008
IC 3724	12 42 25.2	10 32 12	Sc(s)I-II			14.91	0.80	0.20								0.009
NGC 4665	12 42 33.1	03 19 50	$SB0_{1,3}$/SBa:	785	50	11.60	1.62	0.07			≤7.3					
IC 3727	12 42 34.8	11 10 24	dE3:			14.30	1.19	0.00	2230	15	12.4	3.0	389	472	0.052	0.012
RMB 324	12 42 45.0	10 27 00	Sa			14.88	1.08	0.00								0.009
IC 3735	12 42 49.8	13 57 36	dE5			14.55	1.02	0.23								0.006
IC 3742	12 43 07.2	13 35 12	Sc(s)II	915	100	13.86	1.27	0.27	968	5	10.9	1.1	169	194	0.070	0.006
IC 3745	12 43 16.2	19 26 48				14.56										0.006
IC 815	12 43 54.0	12 08 48	E3	2390	15	14.61	0.72	0.07								0.004
UGC 7943	12 44 12	06 14	Sc			13.47	1.40	0.09	837	15	9.4	4.4		133		
IC 817	12 44 24.0	10 07 42	E1			14.80	0.80	0.12								0.008
IC 3773	12 44 44.0	10 28 36	dS0(6)	1095	44	13.85	1.36	0.43								0.007
IC 3779	12 44 54	12 25 30	dE6:			14.88	0.92	0.34								0.008
UGC 7960	12 45 12	04 09	Sab			14.86	1.07	0.31								0.006
NGC 4688	12 45 14.0	04 36 27	SBc(s)II			12.68	1.52	0.03	985	5	36.5	6.1	54	71	0.630	
NGC 4689	12 45 15.3	14 02 13	Sc(s)II.3			11.58	1.60	0.06	1620	5	9.1	2.0	184	206	0.035	
NGC 4694	12 45 44.0	11 15 28	Amorphous	1177	14	12.19	1.56	0.34	1153	30	2.9	0.7		90	0.032	
NGC 4698	12 45 51.8	08 45 37	Sa			11.54	1.63	0.24	1008	5	50.3	5.0	420	445	0.170	0.010
IC 3806	12 46 37.2	15 09 54	Sa:			14.48	1.22	0.41	3173	15	2.5	0.4	69	101	0.038	0.006
UGC 7976	12 46 42	04 56	Sdm			14.68	1.03	0.05	2661	5	6.8	0.7	76	99	0.098	0.007
NGC 4710	12 47 09.0	15 26 15	$S0_3$ (9)	1135	14	11.85	1.71	0.57			≤0.6					
UGC 7983	12 47 13.8	04 07 00	dIm			16.5	1.02	0.14	694		5.7		47	68	0.138	
NGC 4713	12 47 25.6	05 34 58	SBc(s)II-III			12.21	1.45	0.17	653	3	58.2		165	186		
NGC 4733	12 48 35.9	11 11 03	SB0/a	908	23	12.63	1.37	0.04								0.004
NGC 4746	12 49 25.2	12 21 18	Sc	1767	39	13.34	1.39	0.56	1777	5	17.2	2.3	328	358	0.06	0.007
NGC 4754	12 49 46.9	11 35 06	$SB0_1$ (5)	1377	15	11.41	1.67	0.26			≤0.37					
NGC 4758	12 50 14.8	16 07 10	Sc			13.67	1.50	0.56	1242	6	12.6	2.4	188	210	0.072	
UGC 8015	12 50 24	10 16	Sb(r)I			13.95	1.32	0.20								0.0034
NGC 4762	12 50 25.5	11 30 05	S0	984	11	11.26	1.94	0.73			≤0.42					0.004
NGC 4765	12 50 42.4	04 44 10	Sd:	770	29	13.13	1.16	0.12	724	5	18.6	1.7	83	119	0.230	0.020
NGC 4779	12 51 19.8	09 58 48	SBbc	2628	10	12.83	1.36	0.06	2832	5	8.3		220	237		0.018
NGC 4791	12 52 12	08 19				14.56	0.70	0.15								0.009
UGC 8032	12 52 12	13 30	S0(8)			13.87	1.46	0.52								0.009
IC 3881	12 52 20.2	19 26 55	SBc			13.37	1.58	0.58	924	5	32.4	4.4	209	220	0.120	
NGC 4795[5]	12 52 31.6	08 20 15	SBa(s)			13.18	1.23	0.06	2803	20	6.3	0.9	407	422	0.018	0.002
NGC 4796[5]	12 52 36	08 20		2775	75	13.98	0.35	0.00	2761	10	8.2	1.7	284	310	0.044	0.006
NGC 4803	12 53 06	08 30				13.99										0.006
UGC 8056	12 53 48	10 28	SBc			14.55	1.13	0.24	2701	10	11.6	1.4	194	231	0.076	0.007
UGC 8061	12 54 12	12 12	Dwarf			16.5	1.00	0.00								0.015
UGC 8081	12 55 40.0	15 07 47	Sm			16.5	1.00	0.10								0.018
UGC 8085	12 55 48	14 50	Sb II			14.37	1.40	0.55	2047	10	18.8	0.8	205	255	0.120	0.004
UGC 8089	12 56 00	09 48	Sdm			14.56	1.03	0.00								0.008
UGC 8091	12 56 10.0	14 29 13	Im V			14.59	1.08	0.04	216	2	8.4	0.2	30	48	0.360	0.030
IC 840	12 56 12	10 53	SBc			14.46	1.03	0.00								0.006
UGC 8093	12 56 18	09 55	SBc(r)			14.59	1.08	0.26								0.007

TABLE III *(continued)*.

Name (1)	R.A. (2)	Dec. (3)	Type (4)	v_{opt} [km s^{-1}] (5)	(6)	B_T (7)	Log D_0 (8)	Log r_0 (9)	v_{HI} [km s^{-1}] (10)	(11)	$\int S * dv$ [Jy · km s^{-1}] (12)	(13)	Δv_{50} [km s^{-1}] (14)	Δv_{20} (15)	S_{max} [Jy] (16)	S_{rms} (17)
NGC 4866	12^h 56^m $57^s.9$	14° 26′ 25″	Sa			$11^m.72$	1.81	0.62	1988	4	25.2	7.1	542	562	0.058	0.007
NGC 4880	12 57 40.9	12 45 10	E4/S0$_1$ (4)	1479	32	12.42	1.52	0.12			≤3.0					
UGC 8114	12 57 54	13 57	SBc			14.72	1.22	0.38	1990	10	8.4	0.7	119	157	0.077	0.006
UGC 8155	13 00 42	08 04	S pec			13.31	1.49	0.05								0.018
UGC 8192	13 03 48	10 38	Sab			14.27	1.10	0.07	934	5	4.3	0.32	54	72	0.081	0.006

Notes:

1) A1212+06: The whole signal is probably due to confusion with NGC 4197.
2) NGC 4268: Confusion with NGC 4273. The flux observed is just as expected for a separation of 4.3 arcmin. Tentatively an upper limit of 4.0 Jy · km s^{-1} may be placed on the flux from NGC 4268.
3) NGC 4322: All observed signal is coming from NGC 4321.
4) NGC 4567/4568: Even with Arecibo data it is not possible to disentangle the signals from the two galaxies.
5) NGC 4795/4796: Signal is most likely due to NGC 4795. NGC 4796 is much smaller and the separation is only 0.5 arcmin.

In the following three cases only Arecibo data allowed to separate the signals from the two galaxies:

NGC 4294/4299,
NGC 4298/4302, and
NGC 4633/4634.

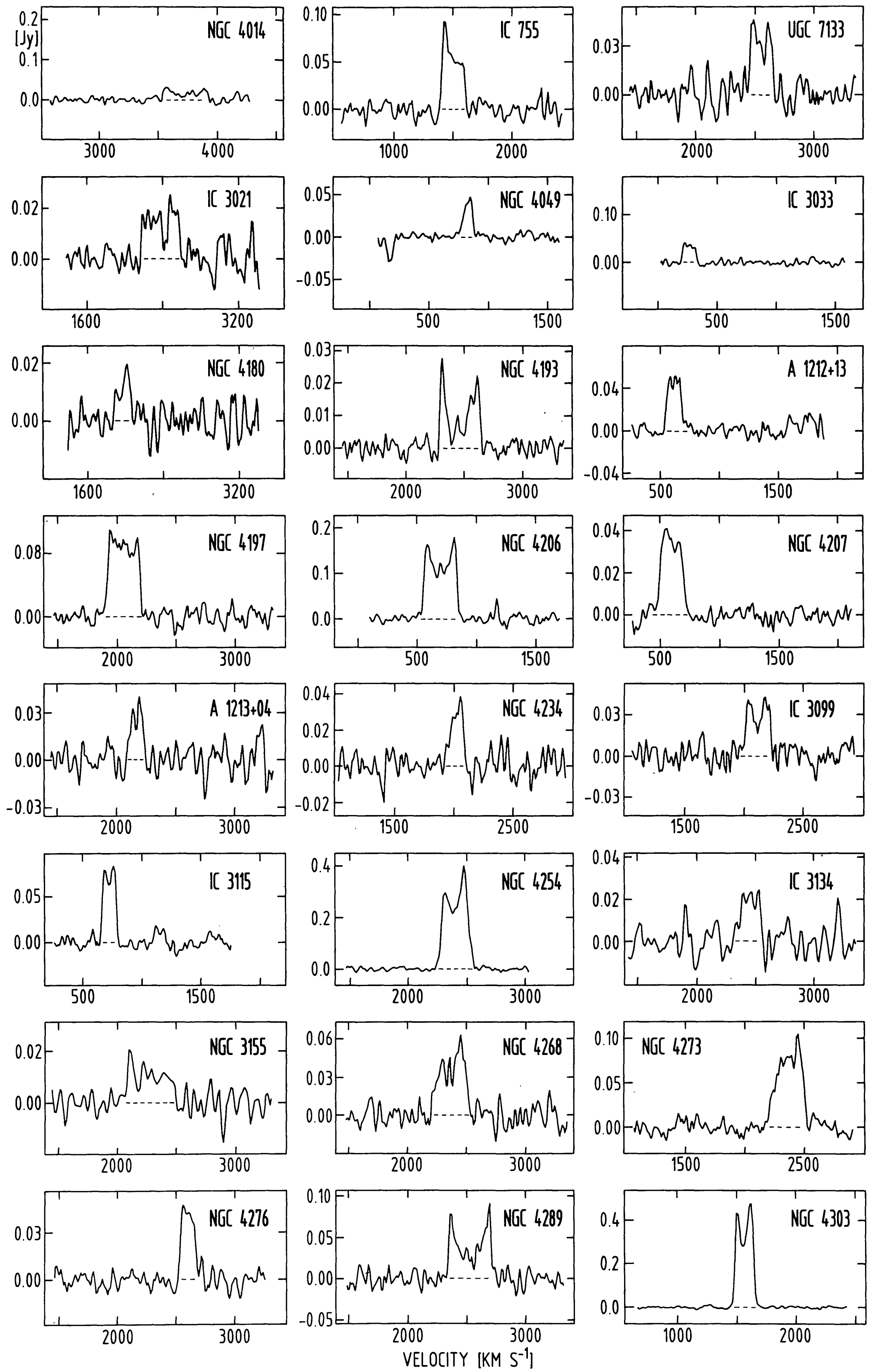
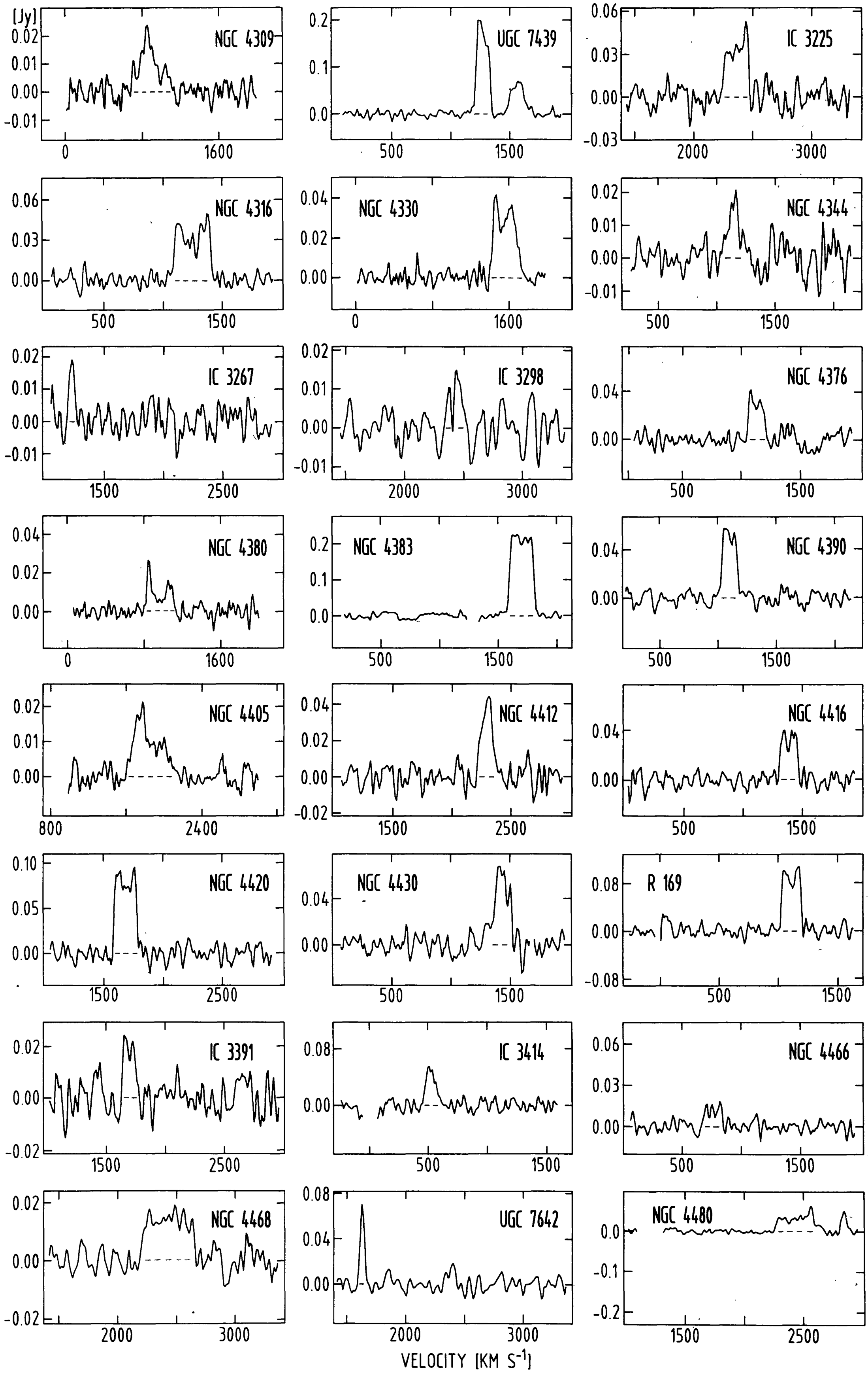


FIGURE 1.1

FIGURE 1. — Final calibrated HI profiles for the galaxies detected during our Effelsberg observations.



[Jy]
NGC 4309
UGC 7439
IC 3225
NGC 4316
NGC 4330
NGC 4344
IC 3267
IC 3298
NGC 4376
NGC 4380
NGC 4383
NGC 4390
NGC 4405
NGC 4412
NGC 4416
NGC 4420
NGC 4430
R 169
IC 3391
IC 3414
NGC 4466
NGC 4468
UGC 7642
NGC 4480
VELOCITY [KM S^{-1}]

FIGURE 1.2

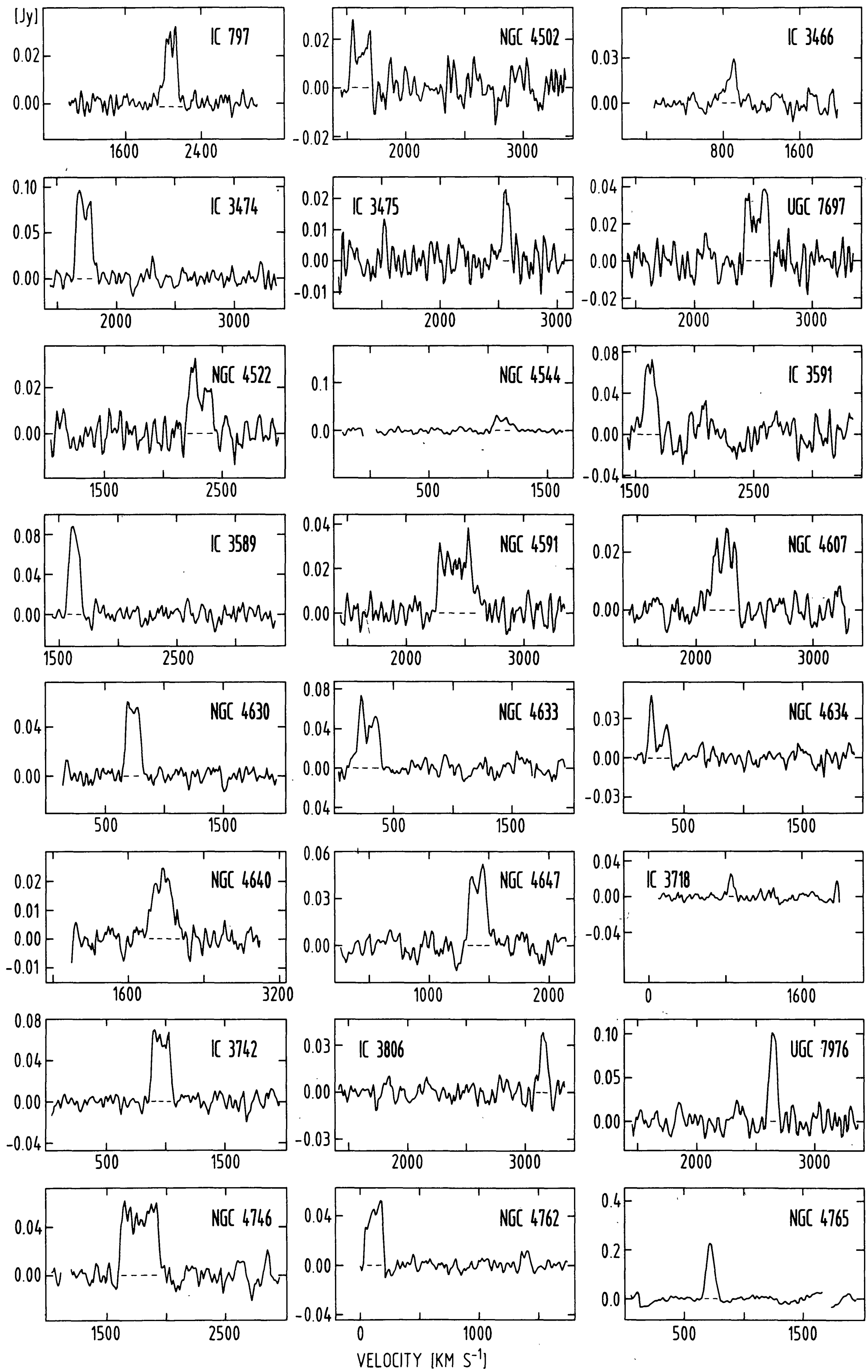

[Jy]
IC 797
NGC 4502
IC 3466
IC 3474
IC 3475
UGC 7697
NGC 4522
NGC 4544
IC 3591
IC 3589
NGC 4591
NGC 4607
NGC 4630
NGC 4633
NGC 4634
NGC 4640
NGC 4647
IC 3718
IC 3742
IC 3806
UGC 7976
NGC 4746
NGC 4762
NGC 4765
VELOCITY [KM S-1]

FIGURE 1.3

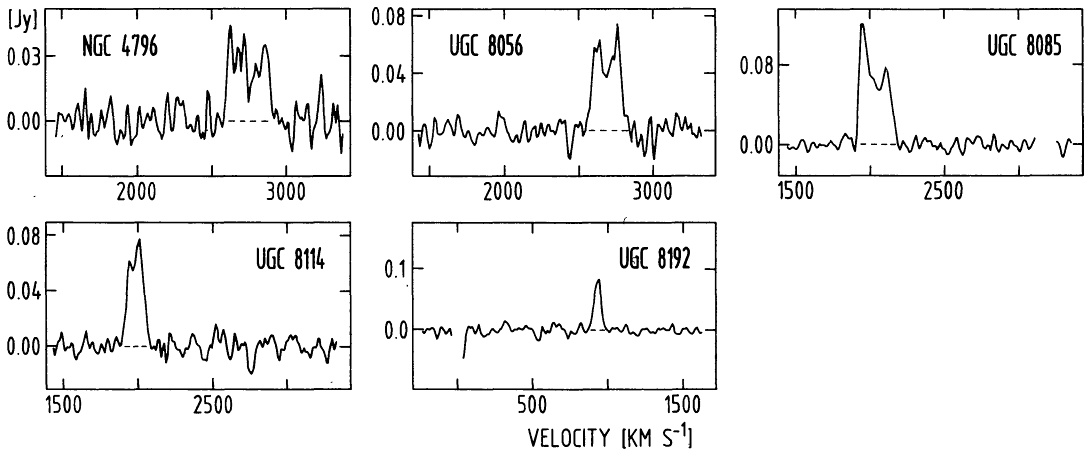

[Jy]
0.03
0.00
NGC 4796
2000
3000
0.08
0.04
0.00
UGC 8056
2000
3000
0.08
0.00
UGC 8085
1500
2500
0.08
0.04
0.00
UGC 8114
1500
2500
0.1
0.0
UGC 8192
500
1500
VELOCITY [KM S-1]

FIGURE 1.4