

N.	date u.t.	φ°	L°	ω°	S	A_d	A'_d	A_H	A'_H	n	T	Q
3965	29.426- 1-62	4	14	272	97	334	64	687	131			
		4	3	273	90	175	80	201	91			
						509	144	688	222	8	G	3
3966	20.458- 1-62	4	9	268	99	38	13	135	45	2	-	3
	22.458- 1-62	17	360	48	62	35	13	22	8	3	C	4
	23.486- 1-62	19	2	23	49	191	54	109	31			
		17	360	29	49	111	80	64	46			
						302	134	173	77	10	D	4
3967	24.381- 1-62	19	2	359	43	191	57	106	32			
		17	360	2	42	127	70	70	39			
						318	127	176	71	16	D	4
	26.381- 1-62	19	2	312	56	111	51	67	31			
		17	360	312	54	89	35	53	21			
3967	27.527- 1-62					200	86	120	52	7	D	4
		17	360	296	70	89	48	62	33	10	J	2
3967	23.486- 1-62	12	60	287	74	35	19	26	14	2	C	4
		12	60	279	87	32	16	32	16	1	C	4

EXPLANATIONS

N = Rome Group Number
 φ° = Heliographic latitude
 L° = Heliographic longitude
 ω° = Position angle of the spot
 S = Spot distance from the center in centymes of the solar radius
 T = Group type
 G = Number of the observed groups
 n = Number of the observed spots
 Q = Quality of the solar image: 1 - Very poor; 2 - Fair; 3 - good; 4 - Very good; 5 - excellent.
 A_d = Apparent total area (in millionths of the solar disk)
 A'_d = Apparent umbra area (" " " " " ")
 A_H = Corrected total area (in millionths of the solar hemisphere)
 A'_H = Corrected umbra area (" " " " " ")

- LITOGRAFIA "NICOLETTI & TERNZI" - Roma, Via del Pigneto, 162 F - Tel. 275.607 -
 " Gennaio 1962 "

OSSERVATORIO ASTRONOMICO DI ROMA

(Direttore prof. Massimo Cinino)

Circolare N.49

FENOMENI SOLARI

osservati nel mese di gennaio 1962

TABLE I

Daily Total areas of the sunspot - groups, by A. Boccitto, R. Flaminio V. Croce and M. Torelli.

	date u.t.	G	n	A_d	A'_d	A_H	A'_H	Q
1962 January	1.361	1	-	143	54	136	51	2
	3.458	1	3	89	32	98	35	2
	4.509	1	2	105	32	86	28	2
	5.500	2	5	137	51	83	31	2
	6.485	1	6	70	32	40	18	3
	7.488	1	3	51	19	27	10	3
	8.416	1	1	38	13	20	7	2
	9.500	0	0	0	0	0	0	-
	11.375	0	0	0	0	0	0	-
	16.406	2	9	207	85	356	140	2
	17.436	1	2	76	22	45	13	2
	20.519	1	20	1400	429	1129	348	3
	21.458	1	37	2036	620	1308	413	3
	22.458	2	40	2008	538	1125	302	4
	23.485	4	47	2549	549	1418	346	4
	24.381	4	49	2577	573	1252	307	4
	26.381	4	36	2241	634	1434	401	4
	27.527	4	64	1963	631	1324	424	2
	28.479	4	89	1839	447	1230	289	2
	29.426	3	47	1933	615	1634	468	3
	30.458	2	40	1302	464	804	284	3
	31.412	3	42	1608	763	1148	561	3
Mean value				1007	300	668	203	

TABLE II

Heliographic position, classification and area of the sunspot-groups
by A. Boccitto, R. Flamini V. Croce, and M. Torelli.

N.	date u. t.	$\mathcal{S}^{\circ}$	L°	$\mathcal{W}^{\circ}$	$\mathcal{J}$	A_d	A_H^1	A_H	A_H^2	n	T	Q
3958	24.472-12-61	-3	93	274	64	-	-	-	-	5	-	1
3959	24.472-12-61	21	0	69	83	-	-	-	-	8	-	1
3960	29.443-12-61	19	5	333	45	318	80	178	45			
		21	0	343	45	95	16	53	9			
						413	96	231	54	12	D	3
3961	1.361- 1-62	19	5	297	85	143	54	136	51	-	J	2
		8	2	317	29	32	19	17	10			
		11	356	341	27	127	48	66	25			
3962	5.500- 1-62					159	67	83	35	7	D	3
		14	219	77	89	89	32	98	35	3	J	2
		14	219	72	79	105	32	86	26	2	J	2
		14	219	63	64	80	32	52	21	2	J	2
		14	219	51	49	70	32	40	18	6	J	3
		14	219	24	37	51	19	27	10	3	J	3
		14	219	353	33	33	13	20	7	1	J	2
		-15	238	126	35	32	13	17	7			
3963	16.406- 1-62	-17	237	130	40	25	6	14	3			
						57	19	31	10	3	C	2
		17	199	284	98	118	44	296	112	4	J	2
3964	16.406- 1-62	7	66	68	71	54	25	38	18			
		8	78	63	61	35	16	22	10			
						89	41	60	28	5	G	2

N.	date u. t.	$\mathcal{S}^{\circ}$	L°	$\mathcal{W}^{\circ}$	$\mathcal{J}$	A_d	A_d^1	A_H	A_H^2	n	T	Q
3964	17.436- 1-62	7	66	61	61	35	6	22	4			
		8	78	46	43	41	16	23	9			
						76	22	45	13	2	G	2
3965	20.519- 1-62	4	14	73	73	668	191	489	140			
		4	3	74	82	732	238	640	208			
						1400	429	1129	348	20	F	3
	21.458- 1-62	4	14	69	57	1209	318	736	194			
		4	3	72	69	827	302	572	219			
						2036	620	1308	413	37	F	3
	22.458- 1-62	4	14	58	36	1050	270	563	145			
		4	3	66	52	923	255	540	149			
						1973	525	1103	294	37	F	4
	23.486- 1-62	4	14	11	20	1209	255	617	130			
		4	3	46	32	955	175	504	92			
						2164	430	1121	222	33	F	4
	24.381- 1-62	4	14	315	24	1241	255	539	131			
		4	3	10	21	986	175	505	89			
						2227	430	1044	220	27	F	4
	26.381- 1-62	4	14	278	59	923	191	572	118			
		4	3	289	41	589	159	323	87			
						1512	350	895	205	14	E	4
	27.527- 1-62	4	14	271	76	700	175	539	135			
		4	3	276	61	477	143	301	90			
						1177	318	840	225	21	E	2
	28.479- 1-62	4	14	272	90	477	64	548	73			
		4	3	274	78	207	41	165	33			
						684	105	713	106	21	E	2

N.	L	B	date	u.t.	δ	γ°	L°	ω°	ζ	A_d	A'_d	A_H	A'_H	n	T	Q
5978			17.468	-2-62	33	17.6	202	283	140	5	38	19	36	21	10	10
			183	250	383	183	200	296	144	0	25	6	14	3		
5	3	02	183	250	383	183	200	296	144	0	25	6	14	3	J	C
			11.468	-2-62	33	17.7	201	272	189	5	32	19	36	35	21	1
			181	251	371	181	20	270	189	0					J	2
2	3	01	181	251	371	181	20	270	189	0						
1	3	1	-	-	-	-	-	-	182	0			32-3-30			
1	3	2	-	-	-	-	-	-	182	0			32-2-30	3		
4	3	01	32	31	35	37	32	353	01-				32-1-140	35		0030
3	3	0	33	31	34	33	33	353	01-				32-1-030	33		
			3	31	35	34	33	353	01-				32-1-030	33		
EXPLANATIONS			31	31	35	34	33	353	01-							
			31	31	35	34	33	353	01-							

EXPLANATIONS

N = Rome Group Number
 ϕ° = Heliographic latitude
 λ° = Heliographic longitude
 ω° = Positions angle of the spot
 S = Spot distance from the center in centymes of the solar radius
 T = Group type
 G = Number of the observed groups
 n = Number of the observed spots
 Q = Quality of the solar image: 1-Very poor; 2 - Fair; 3 - good
 4-Very good; 5 - excellent

A. = Apparent total area (in millionths of the solar disk)

A_u = Apparent umbra area (" " " " " ")

A_{∞} = Corrected total area (in millionths of the solar hemisphere)

A₂ = Corrected umbra area (" " " " ")

[illegible]

10	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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" FEBBRAIO 1962 "

Osservatorio Astronomico di Roma

(Direttore prof. Massimo Cimino)

Circolare N. 50

FENOMENI SOLARI

osservati nel mese di Febbraio 1962

TABLE I

Daily Total areas of the sunspot - groups, by A. Boccitto, V. Croce and M. Torelli.

	date u.t.	G	n	A _d	A _d ¹	A _H	A _H ¹	Q
1962	1.509	4	60	2103	746	1443	619	3
February	3.608	37	1295	373	1194	325	2	
	4.509	3	14	270	695	142	37	1
	5.396	3	22	-	-	-	-	1
	7.468	14	174	79	103	46	3	
	11.468	2	32	19	35	21	2	
	12.396	0	0	0	0	0	2	
	13.458	0	0	0	0	0	-	
	15.443	1	293	112	304	115	2	
	16.416	1	7	379	144	275	104	2
	17.416	1	398	144	244	89	1	
	18.458	2	7	392	137	221	78	4
	19.368	2	13	423	125	225	66	3
	22.410	4	39	2573	577	1868	414	4
	24.442	6	82	3582	904	2027	524	4
	25.479	3	60	3536	976	1889	477	4
	Mean Value			1029	297	665	188	

(continued on next page)

nd, M. Torelli. 1976. 65745

N.	T	S	date u. t.	ΔA	$\Delta \lambda$	$\Delta \mu$	$\Delta \sigma$	$\Delta \delta$	$\Delta \alpha$	$\Delta \beta$	$\Delta \gamma$	$\Delta \eta$	$\Delta \theta$	n	T	Q
3968			1.509-2-62	01	25 8	303	278	873	245	134	179	98				
					10	292	282	861	1836	398	943	261				
					8				1681	532	1022	349	87	E	3	
			3.508-2-62	01	36 8	303	269	891	176	48	206	58				
					10	292	272	88	732	176	770	184				
									907	223	976	242	17	E	2	
			4.509-2-62		9	297	-	-	-	-	-	-	7	-	1	
			5.396-2-62		9	297	-	-	-	-	-	-	1	-	11	
3969			26.381-1-62		-10	286	89	79	32	13	26	10	2	J	4	
			27.529-1-62		-10	286	90	65	44	19	29	26	6	J	2	
			28.479-1-62		-10	286	92	39	32	13	17	7				
					-10	286	92	47	32	10	13	5				
									64	23	35	12	11	C	2	
			29.426-1-62		-10	286	93	29	57	10	30	5	3	C	3	
3970			28.479-1-62		-13	323	239	22	80	32	41	16	6	C	2	
3971			31.412-1-62		- 7	294	-	-	-	-	-	-	-	-	3	
			1.509-2-62		- 7	294	255	68	-	-	-	-	-	-	3	
3972			31.412-1-62		6	214	69	90	64	29	75	83				
					7	210	68	97	143	80	294	164				
									207	109	367	197	8	C	3	
			1.509-2-62		6	214	64	73	175	80	123	58				
					7	210	65	77	267	102	212	80				
									442	193	340	139	21	D	3	
			3.506-2-62		6	214	42	37	143	64	77	34				
					7	210	49	42	127	48	70	28				
									270	112	147	60	19	G	2	
			4.509-2-62		6	214	8	21	143	35	73	18	3	J	1	
			5.396-2-62		6	214	325	22	-	-	-	-	11	J	1	
			7.468-2-62		6	214	278	58	111	54	68	33	6	J	3	
			11.468-2-62		6	214	268	99	-	-	-	-	-	J	2	
3973			1.509-2-62		9	201	64	87	80	32	81	32	1	J	3	
			3.506-2-62		9	201	63	68	113	38	72	23	1	J	2	
			4.509-2-62		9	201	39	40	127	35	69	19	4	J	1	
			5.396-2-62		6	202	13	30	-	-	-	-	-			
					8	200	27	27	-	-	-	-	-	10	C	

N.	date u.t.	γ^0	L^0	ω^0	ρ	A_d	A_d^1	A_H	A_H^1	n	T	Q
3983	2.424-3-62	6	220	32	38	32	10	17	5			
	2.424-3-62	8	220	30	39	35	25	19	14			
	2.424-3-62	6	209	44	53	127	38	75	22			
3984	2.424-3-62	6	201	48	62	35	29	22	18			
	2.424-3-62	6	205	48	78	54	32	43	25	2	-	1
3985	2.424-3-62	12	179	292	46	102	32	57	18	6	C	1

EXPLANATIONS

N = Rome Group Number
 γ^0 = Heliographic latitude
 L^0 = Heliographic longitude
 ω^0 = Position angle of the spot
 ρ = Spot distance from the center in centymes of the solar radius
T = Group type
G = Number of the observed groups
n = Number of the observed spots
Q = Quality of the solar image: 1 - Very poor; 2 - Fair; 3 - good
4 - Very good; 5 - excellent

A_d = Apparent total area (in millionths of the solar disk)

A_d^1 = Apparent umbra area (" " " " " " ")

A_H = Corrected total area (in millionths of the solar hemisphere)

A_H^1 = Corrected umbra area (" " " " " " ")

OSSERVATORIO ASTRONOMICO DI ROMA

(Direttore prof. Massimo Cimino)

Circolare N. 51

FENOMENI SOLARI

osservazioni nel mese di Marzo 1962

TABLE I

Daily Total areas of the sunspot - groups, by A. Boccitto, R. Flamini
V. Croce and M. Torelli.

date u.t.	G	n	A_d	A_d^1	A_H	A_H^1	Q
1962							
2.424	5	44	1663	434	1775	414	4
March	2	8	156	64	100	43	1
13.398	1	6	229	64	292	81	3
15.406	2	10	251	95	182	67	1
16.406	2	7	125	32	77	18	3
17.479	3	8	-	-	-	-	1
18.490	3	11	77	16	53	8	2
23.366	3	39	2583	668	1515	388	3
26.378	3	40	1677	477	906	258	2
28.447	1	13	1272	254	875	175	3
30.509	2	13	436	112	619	151	3
31.495	2	12	175	32	350	50	2
Mean Value			721	187	562	138	

TABLE II

Heliographic position, classification and area of the sunspot - groups
by A. Boccitto, R. Flamini and M. Torelli.

N.	date u. t.	S°	L°	A_d	A_d^1	A_H	A_H^1	n	T	Q
3974	15.448-2-62	3	17	67	87	134	48	136	48	
		5	17	66	88	159	64	168	67	
						293	112	304	115	- G 2
	16.416-2-62	3	17	66	72	172	64	124	46	
		5	17	63	73	207	80	151	58	
						379	144	275	104	7 G 2
	17.416-2-62	3	17	58	57	175	64	106	39	
		5	17	53	53	223	90	137	49	
						393	144	243	98	7 G 1
	19.458-2-62	3	17	44	38	159	48	86	21	
		5	17	39	39	191	70	104	39	
						350	118	190	59	6 G 4
	19.368-2-62	3	17	20	21	159	48	81	24	
		5	17	14	24	229	64	118	53	
						398	112	199	57	10 G 3
	22.410-2-62	3	17	271	58	111	32	68	19	
		5	17	269	59	143	41	89	26	
						254	73	157	45	3 G 4
	24.443-2-62	3	17	179	88	64	29	67	30	
		5	17	173	89	102	35	112	38	
						166	64	179	68	2 G 4
	25.479-2-62	3	17	259	97	64	19	131	39	
		5	17	253	98	88	2	8	3	
						166	64	179	68	2 G 4
3975	18.458-2-62	- 15	337	84	80	32	19	31	19	2 J 4
		- 15	337	88	73	35	13	26	9	3 J 3
		- 15	337	88	73	35	13	26	9	3 J 3
3976	19.368-2-62	- 12	304	87	99	-	-	-	-	4 - 3
		- 11	307	80	60	111	32	70	20	
		- 12	297	80	74	716	127	532	95	
						1591	302	1123	212	30 F 4

N.	date u. t.	S°	L°	A_d	A_d^1	A_H	A_H^1	n	T	Q
3976	24.443-2-62	- 11	307	80	90	19	223	76	113	39
		- 12	304	90	25	1352	255	699	131	
		- 12	297	86	37	795	238	428	128	
						2370	589	1240	298	64 F 4
	25.479-2-62	- 11	307	198	9	334	95	167	43	
		- 12	304	160	9	652	207	327	104	
		- 12	297	110	14	1665	566	835	185	
						2651	669	1329	337	47 F 4
	2.424-3-62	- 11	307	338	94	382	64	560	93	
		- 12	304	337	91	414	73	499	88	
		- 12	297	339	86	23	16	21	15	
						819	153	1090	196	23 F 4
3977	22.410-2-62	9	293	53	80	663	175	557	146	4 H 4
		9	293	38	50	906	223	524	128	10 H 4
		9	293	11	32	811	191	428	101	8 H 4
	25.479-2-62	9	293	11	32	811	191	428	101	8 H 4
		9	293	204	85	461	121	438	115	14 H 4
		9	293	204	85	461	121	438	115	14 H 4
3978	22.410-2-62	- 9	335	81	17	25	6	15	3	
		- 10	333	81	21	35	16	18	8	
						80	22	31	11	2 C 4
3979	24.443-2-62	8	312	353	34	32	13	17	7	
		8	309	353	36	25	13	14	5	
						57	22	31	12	3 C 4
3980	24.443-2-62	9	264	48	82	13	6	11	5	
		9	264	48	82	13	6	11	5	
						32	16	27	13	2 C 4
3981	24.443-2-62	12	312	335	32	25	10	13	5	
		12	309	338	31	28	-	13	-	
						51	10	26	5	1 C 4
3982	2.424-3-62	- 9	290	341	79	95	35	78	23	
		- 8	295	343	73	64	23	46	16	
						159	58	124	44	9 G 4

N.	date u. t.	φ^0	L^0	ω^0	S	A_d	A'_d	A_H	A'_H	n	T	Q
3997	11.519-4-62	-11	347	74	98	64	32	160	80	1	-	2
	12.398-4-62	-10	350	72	93	111	45	152	61			
		-12	345	74	96	32	16	57	29			
						143	61	209	90	7	G	2
	13.385-4-62	-10	350	72	81	175	64	149	54			
		-12	345	73	86	38	16	37	16			
						213	80	186	70	9	G	3
	16.368-4-62	-10	350	77	28	41	19	22	10	2	J	3

EXPLANATIONS

N = Rome Group Number

 φ^0 = Heliographic latitude L^0 = Heliographic longitude ω^0 = Position angle of the spot S = Spot distance from the center in centymes of the solar radius

T = Group type

G = Number of the observed groups

n = Number of the observed spots

Q = Quality of the solar image: 1 - Very poor; 2 - Fair; 3 - good;

4 - Very good; 5 - excellent.

 A_d = Apparent total area (in millionths of the solar disk) A'_d = Apparent umbra area (" " " " ") A_H = Corrected total area (in millionths of the solar hemisphere) A'_H = Corrected umbra area (" " " " ")

- LITOGRAFIA "NICOLETTI & TERNENZI" - Roma Via del Pigneto 162 - Tel. 275.607 -

" APRILE 1962 "

OSSERVATORIO ASTRONOMICO DI ROMA

(Direttore prof. Massimo Cimino)

Circolare N. 52

FENOMENI SOLARI

osservati nel mese di Aprile 1962

TABLE I

Daily Total areas of the sunspot-groups, by A. Boccitto, V. Croce and M. Torelli.

	date u. t.	G	n	A_d	A'_d	A_H	A'_H	Q
1962	01	1	22	300	130	161	69	4
	02	2	15	423	159	233	97	3
	03	2	9	89	38	52	22	3
	04	1	4	48	22	34	16	4
	05	2	12	216	99	164	70	2
	06	1	9	-	-	-	-	2
	07	0	0	0	0	0	0	2
	08	1	1	64	32	100	50	2
	09	3	24	426	175	490	175	3
	10	3	36	387	361	1336	762	3
	11	4	66	2109	505	1319	323	3
	12	3	48	2164	638	1297	389	4
	13	3	48	1893	569	1182	393	2
	14	3	43	1184	423	721	231	3
	15	2	24	716	333	669	232	3
	16	1	1	251	95	217	85	2
	17	1	13	393	143	815	294	3
	18	2	39	860	204	824	223	3
	19	3	59	943	318	849	259	3
	20	3	23	1362	345	869	220	3
	21	1	1	1552	350	740	192	4
	22	1	17	1120	303	576	159	2
	Mean Value			900	250	630	209	

TABLE II

Heliographic position, classification and area of the sunspot-groups
by M. Torelli.

N.	date u.t.	S	L ⁰	A _d	A' _d	A _H	A' _H	n	T	Q
3986	13.388-3-62	10	28 54	92	229	64	292	81	6	C 3
	15.406-3-62	10	28 43	70	233	95	167	67	9	C 1
	16.406-3-62	10	28 33	51	102	32	59	18	6	C 3
	17.479-3-62	10	28 9	36	-	-	-	-	6	C 1
	18.490-3-62	10	28 329	30	48	16	25	8	3	C 2
3987	15.406-3-62	7	3 55	90	13	-	15	-	1	A 1
	16.406-3-62	7	3 53	39	23	-	18	-	1	A 3
	17.479-3-62	7	3 46	61	-	-	-	-	1	A 1
3988	17.479-3-62	8	331 -	-	-	-	-	-	1	A 1
	18.490-3-62	8	331 51	96	29	-	28	-	1	A 2
	23.366-3-62	8	331 303	31	35	19	18	10		
		9	327 320	28	98	38	51	20		
		11	322 340	30	95	38	50	20		
					228	95	119	50	7	D 3
	26.378-3-62	9	327 265	75	48	16	36	12	5	D 2
3989	18.490-3-62	-11	304 75	97	-	-	-	-		
		-14	303 78	97	-	-	-	-		
					-	-	-	-	6	- 2
3990	23.366-3-62	8	302 29	44	359	191	478	106		
		9	291 36	57	1464	392	890	232		
					2323	573	1368	338	29	F 3
	26.378-3-62	8	332 233	42	477	143	263	79		
		9	291 305	31	1114	313	636	167		
					1591	461	949	246	32	E 2

N.	date u.t.	S	L ⁰	A _d	A' _d	A _H	A' _H	n	T	Q
3990	28.477-3-62	8	302 263	75	445	95	337	72		
		9	291 269	64	827	159	538	103		
				1272	254	875	175	13	F	3
	30.509-3-62	8	302 257	97	143	32	295	65		
		9	291 260	90	255	64	292	73		
				398	96	587	138	10	E	3
	31.485-3-62	9	291 256	98	127	16	320	40	8	F 2
3991	23.366-3-62	16	272 39	82	32	-	28	-	2	A 3
3992	26.378-3-62	-10	309 236	44	38	-	21	-	3	A 2
3993	30.509-3-62	-8	179 74	80	38	16	32	13	3	C 3
	31.485-3-62	-8	179 69	61	48	16	30	10	4	C 2
	1.443-4-62	-8	179 69	41	80	25	44	14	4	C 4
	2.468-4-62	-8	179 73	17	111	38	57	19	4	C 3
	5.412-4-62	-8	179 238	53	89	38	52	22	5	J 3
	6.395-4-62	-8	179 238	71	48	22	34	16	4	J 4
	7.412-4-62	-8	179 238	86	57	13	56	12	2	J 2
3994	1.443-4-62	4	217 281	29	89	44	47	23		
		5	211 297	27	102	51	53	26		
					191	95	100	49	14	G 4
	2.468-4-62	4	217 263	51	137	57	80	33		
		5	211 271	42	175	64	96	35		
					312	121	176	68	11	G 3
	5.412-4-62	4	217 251	94	-	-	-	-		
		5	211 253	89	-	-	-	-		
					-	-	-	-	5	- 3
3995	1.443-4-62	13	226 284	51	29	10	17	66	44	J 4
3996	7.412-4-62	9	165 264	69	95	48	66	35		
		11	160 268	65	64	38	42	23		
					159	86	108	58	10	D 2
	8.436-4-62	9	165 258	79	-	-	-	-		
		11	160 263	83	-	-	-	-		
					-	-	-	-	9	G 2

N.	date u. t.	λ°	L°	ω°	S	A_d	A_d'	A_H	A_H'	n	T	Q
4002	3.542-5-62	8	173	268	59	875	178	542	110			
		8	166	269	53	32	16	19	9			
	5.493-5-62	8	173	258	89	493	111	519	117	-	H	1
		8	173	257	96	255	105	455	187	11	H	2

EXPLANATIONS

N = Rome Group Number

 λ° = Heliographic latitude L° = Heliographic longitude ω° = Position angle of the spot S = Spot distance from the center in centymes of the solar radius

T = Group type

G = Number of the observed groups

n = Number of the observed spots

Q = Quality of the solar image: 1 - very poor; 2 - fair; 3 - good;
4 - very good; 5 - excellent. A_d = Apparent total area (in millionths of the solar disk) A_d' = Apparent umbra area (" " " " ") A_H = Corrected total area (in millionths of the solar hemisphere) A_H' = Corrected umbra area (" " " " ")

- LITOGRAFIA "NICOLETTI & TEREZI" - Roma, Via del Pigneto, 162 - Tel. 275.607 -

MAR 15 1962

OSSERVATORIO ASTRONOMICO DI ROMA
(Direttore Prof. Massimo Cimino)

Circolare N. 53

FENOMENI SOLARI

osservati nel mese di Maggio 1962

TABLE I

Daily Total areas of the sunspot - groups, by A. Boccitto, V. Croce and M. Torelli.

	date u. t.	G	n	A_d	A_d'	A_H	A_H'	Q
1962	2.431	2	-	1235	328	835	218	3
May	3.542	2	28	1330	322	843	204	4
	5.493	2	-	604	168	580	149	1
	6.396	3	20	312	137	519	222	2
	8.485	2	4	254	105	313	105	3
	9.344	3	13	376	156	384	135	4
	10.368	3	21	576	213	464	157	4
	11.396	3	17	993	372	785	280	2
	12.475	3	21	818	290	991	301	1
	15.461	1	7	366	102	187	52	4
	16.410	1	4	350	80	191	43	3
	17.358	2	7	343	93	248	81	3
	18.479	2	7	273	80	220	64	3
	21.375	3	9	677	188	1010	279	2
	22.472	2	21	334	121	455	165	1
	23.402	2	31	1527	375	1328	324	3
	25.500	2	53	1894	408	1078	232	4
	28.389	2	39	1417	325	740	172	4
	29.455	3	62	1391	309	801	183	3
	31.378	2	23	1299	302	1247	310	
	Mean Value			820	224	656	184	

TABLE II

Heliographic position, classification and area of the sunspot-groups
by M. Torelli.

N.	date u. t.	λ°	L°	ω°	S	A_d	A_d^1	A_H	A_H^1	n	T	Q
3998	12.398-4-62	8	35	126	50	207	79	119	46			
		9	30	130	54	38	29	28	17			
	13.395-4-62	8	35	12	32	302	121	160	64			
		9	30	26	36	80	32	43	17			
	16.368-4-62	8	35	270	56	366	111	217	67			
		9	30	278	47	557	127	315	72			
	17.447-4-62	8	35	263	73	334	102	244	75			
		9	30	268	64	382	121	243	79			
	18.519-4-62	8	35	261	88	207	99	218	94			
		9	30	263	81	255	108	217	92			
	19.433-4-62	8	35	-	-	-	-	-	-			
		9	30	-	-	-	-	-	-			
3999	12.398-4-62	5	338	58	99	33	6	134	22	1	-	2
		7	330	57	92	159	64	703	231			
	13.395-4-62	5	338	57	92	159	64	744	230			
		7	330	56	97	143	302	1447	611	8	F	3
	16.468-4-62	5	338	43	49	493	70	233	40			
		7	330	46	64	509	121	331	79			
	17.447-4-62	5	338	28	28	541	111	282	58			
		7	330	34	41	764	239	418	131			
	18.519-4-62	5	338	335	18	541	95	275	48			
		7	330	9	27	748	223	398	116			
	20.426-4-62	5	338	257	98	48	25	120	64	3	J	3
		7	330	256	96	60	25	108	45	10	-	2

N.	date u. t.	λ°	L°	ω°	S	A_d	A_d^1	A_H	A_H^1	n	T	Q
3999	19.433-4-62	5	338	-	-	-	-	-	-			
		7	330	-	-	-	-	-	-			
	20.426-4-62	5	338	269	46	366	111	206	63			
		7	330	280	37	716	255	385	137			
	23.368-4-62	5	338	257	92	191	89	244	114			
		7	330	259	88	223	95	234	100			
	24.403-4-62	5	338	256	96	60	25	108	45	10	-	2
		7	330	256	96	60	25	108	45	10	-	2
	4000	5	338	257	92	191	89	244	114			
		7	330	259	88	223	95	234	100			
	4001	5	338	257	92	191	89	244	114			
		7	330	259	88	223	95	234	100			
4002	25.447-4-62	8	173	57	97	398	143	818	294	1	H	3
		8	173	55	88	784	175	720	184			
	26.368-4-62	8	173	56	93	76	29	104	39			
		8	166	56	93	76	29	104	39			
	27.392-4-62	8	173	52	76	711	238	624	184			
		8	166	52	83	200	70	180	63			
	28.351-4-62	8	173	46	59	1002	245	621	152			
		8	166	48	69	293	80	202	55			
	29.461-4-62	8	173	34	38	1050	248	568	134			
		8	166	40	48	302	102	172	58			
	30.406-4-62	8	173	9	22	923	238	473	122			
		8	166	24	30	197	70	103	37			
2.431-5-62	2.431-5-62	8	173	279	40	780	169	425	92			
		8	166	286	33	89	29	47	15			

MAR 15 1963

OSSERVATORIO ASTRONOMICO DI ROMA

(Direttore prof. Massimo Cinino)

Circolare N.54

EXPLANATIONS

N = Rome Group Number
 φ° = Heliographic latitude
 L° = Heliographic longitude
 ω° = Position angle of the spot
 S° = Spot distance from the center in centymes of the solar radius
 T = Group type
 G = Number of the observed groups
 n = Number of the observed spots
 Q = Quality of the solar image: 1 - Very poor; 2 - fair; 3 - good;
 4 - Very good; 5 - excellent.

A_d = Apparent total area (in millionths of the solar disk)
 A_d^1 = Apparent umbra area (" " " " " ")
 A_H = Corrected total area (in millionths of the solar hemisphere)
 A_H^1 = Corrected umbra area (" " " " " ")

FENOMENI SOLARI

osservati nel mese di Giugno 1962

TABLE I

Daily Total areas of the sunspot - groups, by A. Boccitto, V. Croce and M. Torelli.

	date u.t.	G	n	A_d	A_d^1	A_H	A_H^1	Q
1962	1.353	2	15	659	191	773	239	4
June	2.513	1	-	318	70	800	176	2
	4.416	0	0	0	0	0	0	-
	6.402	2	13	325	114	290	99	2
	7.388	2	19	169	82	120	60	2
	10.465	2	35	260	132	151	79	3
	11.375	2	33	318	168	215	106	3
	13.396	1	15	124	86	67	47	4
	14.382	2	28	362	200	193	108	3
	15.354	2	-	334	172	173	90	3
	19.479	5	26	498	140	354	130	2
	21.358	2	25	248	108	138	60	4
	22.375	2	22	290	114	150	59	3
	23.410	2	19	362	127	188	67	3
	24.342	2	18	394	157	602	248	3
	25.354	4	26	585	146	746	187	2
	26.388	3	24	725	223	711	216	4
	27.416	2	14	1184	299	818	213	4
	28.424	2	14	-	-	-	-	1
	29.365	3	27	-	-	-	-	1
	30.416	3	29	1311	236	668	120	2
	Mena Value			446	146	377	121	

- LITOGRAFIA "NICOLETTI & TRENZI" - Roma, Via del Pigneto 162 - Tel. 275.607 -

"GIUGNO 1962"

TABLE II

Heliographic position, classification and area of the sunspot-groups
by M. Torelli.

N.	date u. t.	φ°	L°	ω°	S	A_d	A'_d	A_H	A'_H	n	T	Q
4003	27.392-4-62	12	156	46	92	32	10	41	12	1	C	3
	28.351-4-62	12	156	49	90	32	10	27	8	4	C	3
4004	28.351-4-62	10	225	33	39	35	10	19	5	3	J	3
4005	2.431-5-62	18	107	36	73	197	60	153	43			
		18	102	39	83	229	70	205	63			
						423	130	363	111	-	G	3
	3.542-5-62	18	107	31	63	238	64	154	41			
		18	102	33	69	195	64	128	44			
						423	123	232	35	10	G	4
	5.493-5-62	18	107	351	40	111	57	61	31	-	J	1
	6.396-5-62	18	107	323	39	-	-	-	-	5	J	2
4006	6.396-5-62	15	42	48	89	57	32	63	35	4	J	2
	8.485-5-62	15	42	39	53	95	64	59	39	3	J	3
	9.344-5-62	15	42	23	45	86	38	43	21	3	J	4
	10.368-5-62	15	42	357	32	51	35	27	18	4	J	4
	11.396-5-62	15	42	318	32	38	19	20	10	3	J	2
	12.475-5-62	15	42	291	43	29	13	16	7	3	J	1
4007	8.485-5-62	-19	352	55	95	159	41	254	66	1	H	3
	9.344-5-62	-9	352	76	94	191	64	230	93	2	H	4
	10.368-5-62	-9	352	77	85	302	70	237	66	1	H	4
	11.396-5-62	-9	352	79	71	372	95	265	63	2	H	2
	12.475-5-62	-19	352	83	50	398	143	229	33	10	H	1
	15.461-5-62	-9	352	217	21	366	102	187	52	7	H	4

N.	date u. t.	φ°	L°	ω°	S	A_d	A'_d	A_H	A'_H	n	T	Q
4007	16.410-5-62	-19	352	232	40	350	80	191	43	4	H	3
	17.353-5-62	-9	352	237	59	302	64	187	39	5	H	3
	18.479-5-62	-19	352	242	78	238	70	189	56	3	H	3
4008	9.344-5-62	-18	90	215	50	51	22	29	13			
		-19	96	210	43	43	32	27	13			
						99	54	56	31	8	C	4
	10.368-5-62	-18	90	222	69	143	60	99	42			
		-19	96	220	63	80	43	51	31			
						223	103	150	73	16	C	4
	11.396-5-62	-18	90	223	83	398	191	357	171			
		-19	96	226	79	175	67	143	31			
						573	253	500	202	12	D	2
	12.475-5-62	-18	90	232	98	296	80	512	142			
		-19	96	229	92	105	54	124	69			
						391	134	646	211	8	D	1
4009	17.353-5-62	3	246	64	94	41	29	61	42	2	J	3
	18.479-5-62	3	246	64	92	35	10	31	3	4	J	3
	21.375-5-62	3	246	47	23	51	25	26	13	1	J	2
4010	21.375-5-62	14	193	53	91	461	105	557	127			
		13	196	56	92	70	29	89	36			
						531	134	646	163	8	D	2
	22.472-5-62	14	193	52	90	-	-	-	-			
		13	196	55	91	-	-	-	-			
						-	-	-	-	15	D	1
	23.403-5-62	14	193	47	67	493	111	332	75			
		13	196	50	67	111	33	75	26			
						604	149	407	101	16	D	3
	25.500-5-62	14	193	16	32	573	137	302	72	29	D	4
	28.339-5-62	14	193	232	52	223	86	130	50	12	J	4
	29.455-5-62	14	193	276	70	223	90	153	56	27	J	3
	31.373-5-62	14	193	263	94	366	111	537	163	10	J	2
	1.353-6-62	14	193	263	98	54	32	136	30	4	J	4

N.	date u. t.	φ°	L°	ω°	S	A_d	A'_d	A_H	A'_H	n	T	Q
4018	19.479-6-62	15	192	67	73	83	32	60	23			
		16	185	66	78	80	22	64	18			
						163	54	124	41	10	D	2
	21.358-6-62	15	192	51	40	197	86	108	47			
		16	185	59	51	41	16	24	9			
						238	102	132	56	22	D	4
	22.375-6-62	15	192	19	26	223	95	115	49			
		16	185	39	36	35	13	19	7			
						258	108	134	56	14	D	3
	23.410-6-62	15	192	330	27	318	111	165	59			
		16	185	352	22	44	16	23	8			
						362	127	188	67	18	H	3
	24.342-6-62	15	192	301	40	216	80	118	43	14	J	3
	25.354-6-62	15	192	290	58	45	19	27	12	6	J	2

EXPLANATIONS

N = Rome Group Number

 φ° = Heliographic latitude L° = Heliographic longitude ω° = Position angle of the spot S = Spot distance from the center in centymes of the solar radius

T = Group type

G = Number of the observed groups

n = Number of the observed spots

Q = Quality of the solar image: 1 - Very poor; 2 - Fair; 3 - good;
4 - Very good; 5 - excellent. A_d = Apparent total area (in millionths of the solar disk) A'_d = Apparent umbra area (" " " " " ") A_H = Corrected total area (in millionths of the solar hemisphere) A'_H = Corrected umbra area (" " " " " ")

OSSERVATORIO ASTRONOMICO DI ROMA

(Direttore prof. Massimo Cimino)

Circolare N. 55

FENOMENI SOLARI

osservati nel mese di Luglio 1962

TABLE I

Daily Total areas of the sunspot - groups, by A. Boccitto, V. Croce and M. Torelli.

	date u. t.	G	n	A_d	A'_d	A_H	A'_H	Q
1962	1.340	2	31	907	252	478	133	1
July	2.381	2	32	620	178	354	102	2
	3.375	2	22	500	191	342	180	2
	5.500	1	10	398	127	507	162	2
	6.391	2	7	248	118	716	345	2
	7.436	1	3	270	80	368	108	2
	9.424	1	3	461	111	314	76	4
	10.396	1	4	493	115	283	66	2
	11.385	1	8	509	121	266	53	3
	12.388	1	11	573	127	288	64	3
	17.385	1	5	239	83	262	91	3
	18.478	1	-	-	-	-	-	1
	19.375	1	1	38	26	24	15	2
	20.375	1	3	32	13	17	7	1
	21.401	1	-	54	22	127	53	1
	23.375	1	3	120	38	97	30	3
	24.361	1	8	136	85	86	54	3
	25.368	1	8	79	57	43	31	4
	26.406	1	1	32	0	16	0	2
	27.528	1	4	79	0	40	0	2
	28.375	1	3	48	0	25	0	2
	29.353	1	2	32	0	18	0	3
	30.375	0	0	0	0	0	0	-
	31.375	0	0	0	0	0	0	-
	Mean Value			255	76	203	66	

TABLE II

Heliographic position, classification and area of the sunspot - groups
by M. Torelli.

N.	date u. t.	γ°	L°	ω°	ρ°	A_d	A_d'	A_H	A_H'	n	T	Q
4011	21.375-5-62	- 9	179	80	99	95	29	338	102	-	-	2
	22.472-5-62	- 9	179	82	93	334	124	455	165	6	G	1
	23.402-5-62	- 9	179	83	83	621	159	556	142			
		- 8	171	81	91	302	87	365	81			
						923	236	921	223	15	G	3
	25.500-5-62	- 9	179	91	49	955	191	547	110			
		- 8	171	87	60	366	80	229	50			
						1321	271	776	160	24	G	4
	28.389-5-62	- 9	179	212	21	1114	207	570	106			
		- 8	171	180	10	80	32	40	16			
						1194	239	610	122	27	H	4
	29.455-5-62	- 9	179	236	41	1082	194	596	107	27	H	3
	31.378-5-62	- 9	179	242	76	923	191	710	147	13	H	2
	1.353-6-62	- 9	179	246	88	605	159	637	167	11	H	4
	2.513-6-62	- 9	179	247	98	318	70	800	176	-	H	2
4012	29.455-5-62	10	182	279	48	54	19	31	11			
		11	180	283	44	32	16	18	9			
						86	35	49	20	11	G	3
4013	6.402-6-62	7	61	291	21	57	25	29	13			
		8	58	309	19	45	16	23	8			
						102	41	52	21	5	G	2
	7.386-6-62	7	61	274	41	10	3	5	2			
		8	53	280	37	49	19	26	10			
						58	22	31	12	11	G	2
4014	6.402-6-62	- 7	353	87	84	32	16	29	15			
		- 9	343	88	89	191	57	209	63			
						223	73	233	78	8	C	2
	7.388-6-62	- 9	343	89	78	111	60	89	48	8	C	2

N.	date u. t.	γ°	L°	ω°	ρ°	A_d	A_d'	A_H	A_H'	n	T	Q
4014	10.465-6-62	- 7	355	180	12	6	3	3	2			
		- 7	351	150	13	22	19	11	10			
		- 9	348	132	17	25	9	13	5			
		-10	345	121	22	159	70	81	34			
						212	101	108	51	30	D	3
	11.375-6-62	- 7	355	222	21	115	80	59	41			
		- 7	351	208	18	69	22	31	11			
		- 9	348	188	17	66	28	44	14			
		-10	345	176	18	10	3	48	16			
						271	133	182	82	29	D	3
4015	10.465-6-62	-13	302	95	82	35	28	30	25			
		-11	297	94	87	13	3	13	3			
						48	31	43	28	5	D	3
	11.375-6-62	-13	302	97	68	41	32	28	22			
		-11	297	95	73	6	3	5	2			
						47	35	33	24	4	D	3
	13.396-6-62	-13	302	117	38	76	57	41	31			
		-11	297	108	41	48	29	26	16			
						124	86	87	47	15	D	4
	14.381-6-62	-13	302	150	24	127	70	68	36			
		-11	297	133	23	111	44	57	23			
						238	114	123	59	20	D	3
	15.354-6-62	-13	302	202	28	165	51	86	27			
		-11	297	180	19	64	41	32	21			
						229	92	118	48	-	D	3
	19.479-6-62	-11	302	249	92	124	48	153	61	7	D	2
4016	14.381-6-62	8	378	62	47	89	64	50	36			
		10	375	62	49	35	22	20	13			
						124	86	70	49	8	C	3
	15.354-6-62	8	378	50	28	64	48	33	25			
		10	375	48	32	41	32	22	17			
						105	80	55	42	-	C	3
	19.479-6-62	10	375	279	80	51	19	32	12	5	C	2
4017	19.479-6-62	-16	271	236	61	25	6	18	4	4	J	2

N.	date u. t.	φ°	L°	ω°	ξ	A_d	A_d°	A_H	A_H°	n	T	Q
4026	21.401-7-62	1	98	93	97	19	6	39	13			
		1	96	98	98	35	16	88	40			
						54	22	127	53	-	-	1
	23.375-7-62	1	98	101	78	120	38	97	30	3	C	3
	24.361-7-62	1	98	103	61	111	70	70	44			
		1	96	102	63	25	15	16	10			
					136	85	86	54	8	C	3	
	25.368-7-62	1	98	109	41	79	57	43	31	8	C	4
	26.406-7-62	1	98	116	20	32	-	16	-	1	J	2
	27.528-7-62	1	98	220	10	79	-	40	-	4	J	2
	28.376-7-62	1	98	260	24	48	-	25	-	3	J	2
	29.253-7-62	1	98	272	48	32	-	18	-	2	JJ	3

EXPLANATIONS

N = Rome Group Number

 φ^o = Heliographic latitude

L^0 = Heliographic longitude

ω^0 = Positions angle of the spot

ξ = Spot distance from the center in centymes of the solar radius

T = Groups type

G = Number of the observed groups

n = Number of the observed spots

Q == Quality of the solar image: 1 - Very poor; 2 - Fair; 3 - Good;

4 - Very good; 5 - Excellent.

A_s = Apparent total area (in millionths of the solar disk)

A_1 = Apparent umbra area (" " " " ")

A_c = Corrected total area (in millionths of the solar hemisphere)

$$A_U = \text{Corrected umbra area (" " " " " ")}$$

- LITOGRAFIA "NICOLETTI & TERENCEZI" - Roma, Via del Pigneto 162 - Tel. 275.607 -
"Agosto 1962"

Osservatorio Astronomico di Roma

(Direttore prof. Massimo Cimino)

Circolare N. 56

FENOMENI SOLARI

osservati nel mese di Agosto 1962

TABLE I

Daily Total areas of the sunspot - groups, by V. Croce and M. Torelli.

	date u. t.	G	n	A _d	A _d ¹	A _H	A _H ¹	Q
1962	1.375	0	0	0	0	0	0	-
August	2.375	0	0	0	0	0	0	-
	3.458	0	0	0	0	0	0	-
	4.592	1	1	-	-	-	-	2
	5.416	1	1	22	10	18	6	4
	6.361	1	6	-	-	-	-	1
	7.361	1	1	-	-	-	-	1
	8.366	1	1	-	-	-	-	1
	9.354	0	9	0	0	0	0	-
	10.354	0	0	0	0	0	0	-
	11.433	0	0	0	0	0	0	1
	12.416	0	0	0	0	0	0	-
	13.363	1	11	210	150	104	75	3
	14.358	2	24	338	260	325	223	3
	15.434	2	29	993	365	645	252	2
	16.381	2	34	709	280	470	186	3
	17.378	3	38	773	210	549	150	3
	18.433	3	25	532	143	457	127	1
	19.350	4	26	543	134	467	143	3
	20.363	2	22	410	162	207	81	3
	21.416	2	23	353	165	185	86	3
	22.372	2	14	277	108	161	63	1
	23.394	2	12	108	32	83	24	1
	24.370	3	9	48	26	50	27	2
	25.373	2	3	32	13	65	26	1
	26.366	0	0	0	0	0	0	-
	27.353	0	0	0	0	0	0	-
	28.360	0	0	0	0	0	0	-
	29.346	1	5	-	-	-	-	1
	30.392	2	10	121	54	88	37	3
	31.390	2	17	174	47	102	27	2
		Mean Value			219	85	152	59

TABLE II

Heliographic position, classification and area of the sunspot-groups
by M. Torelli.

N.	date u. t.	φ°	L°	ω°	S	A_d	A_d^1	A_H	A_H^1	n	T	Q
4019	19.479-6-62	-10	180	97	85	25	13	24	12	3	C	2
	21.358-6-62	-10	180	103	57	10	6	6	4	3	C	4
	22.375-6-62	-10	180	285	26	32	6	16	3	3	J	3
	23.410-6-62	-10	180	-	-	-	-	-	-	1	J	3
4020	24.342-6-62	-1	95	84	98	143	64	360	160			
		1	90	83	99	35	13	124	45			
						178	77	494	205	4	E	3
	25.354-6-62	-1	95	87	91	334	80	403	96			
		1	90	84	93	165	38	225	52			
						499	118	623	148	13	E	2
	26.388-6-62	-1	95	88	78	270	102	216	81			
		1	90	86	82	197	41	172	36			
						487	143	388	117	12	E	4
	27.416-6-62	-1	95	93	61	668	159	422	100			
		1	90	88	67	255	48	171	32			
						923	207	593	132	9	G	4
	28.424-6-62	-1	95	96	49	-	-	-	-			
		1	90	89	42	-	-	-	-			
						-	-	-	-	12	G	1
	29.365-6-62	-1	95	99	11	-	-	-	-			
		1	90	90	27	-	-	-	-			
						-	-	-	-	20	G	11
	30.416-6-62	-1	95	220	7	955	159	478	80			
		1	90	124	4	95	29	48	14			
						1050	188	526	94	22	H	2
	1.340-7-62	-1	95	256	27	668	175	347	91	23	H	1
	2.381-7-62	-1	95	261	48	477	143	272	82	24	H	2
	3.375-7-62	-1	95	263	69	430	159	297	110	18	H	2
	5.500-7-62	-1	95	268	92	398	127	507	162	10	G	2
	6.391-7-62	-1	95	270	98	159	70	400	176	4	G	2

N.	date u. t.	φ°	L°	ω°	S	A_d	A_d^1	A_H	A_H^1	n	T	Q
4021	25.354-6-62	7	229	269	93	25	3	35	4	4	C	2
4022	25.354-6-62	-20	84	103	99	16	6	56	23	3	-	2
	26.388-6-62	-20	84	108	92	229	70	292	89	10	D	4
	27-416-6-62	-20	84	115	80	223	70	186	58			
		-24	76	115	97	38	22	39	23			
						261	92	225	81	5	G	4
	28.424-6-62	-20	84	121	87	-	-	-	-			
		-24	76	-	-	-	-	-	-			
						-	-	-	-	7	G	1
	29.365-6-62	-20	84	132	51	-	-	-	-			
		-24	76	-	-	-	-	-	-			
						-	-	-	-	7	G	1
	30.416-6-62	-20	84	159	40	261	48	142	26			
		-24	76	148	52	-	-	-	-			
						261	48	142	26	7	G	2
	1.340-7-62	-20	84	184	40	207	64	113	35			
		-24	76	167	47	32	13	18	7			
						239	77	131	42	8	G	1
	2.381-7-62	-20	84	210	48	143	35	82	20			
		-24	76	192	49	-	-	-	-			
						143	35	82	20	8	G	2
	3.375-7-62	-20	84	227	62	70	32	45	20	4	J	2
4023	26.388-6-62	12	211	-	89	29	10	31	10	2	J	4
4024	6.391-7-62	9	292	81	99	89	48	316	169	3	H	2
	7.436-7-62	9	292	82	93	270	80	368	108	3	H	2
	9.424-7-62	9	292	82	68	461	111	314	76	3	H	4
	10.396-7-62	9	292	80	49	493	115	283	66	4	H	2
	11.385-7-62	9	292	74	29	509	121	266	53	8	H	3
	12.388-7-62	9	292	40	11	573	127	288	164	11	H	3
	17.385-7-62	9	292	283	89	239	83	262	91	5	H	3
	18.478-7-62	9	292	287	98	-	-	-	-	-	-	1
4025	19.375-7-62	7	165	93	60	38	26	24	15	1	J	2
	20.375-7-62	7	165	92	40	32	13	17	7	3	J	1

NOV 12 1962

4

OSSERVATORIO ASTRONOMICO DI ROMA

(Direttore prof. Massimo Cimino)

Circolare N.57

FENOMENI SOLARI

osservati nel mese di Settembre 1962

TABLE I

Daily Total areas of the sunspot - groups, by A. Boccitto and M. Torelli.

	Date u.t.	G	n	A _d	A' _d	A _H	A' _H	Q
1962	1.408	3	29	452	207	477	182	3
	2.500	3	63	887	332	653	221	3
	3.418	4	60	1.408	429	1.023	287	2
	4.575	4	58	2.348	503	1.508	368	4
	6.385	4	33	1.743	394	1.157	261	4
	7.895	3	32	1.471	357	1.147	287	2
	8.424	3	22	1.384	360	1.051	319	3
	9.428	2	20	954	171	510	144	2
	10.378	2	22	872	162	508	149	3
	11.375	4	14	668	168	459	117	2
	12.368	5	26	786	235	731	221	2
	13.368	4	20	923	257	928	235	3
	14.388	3	34	776	247	557	174	2
	15.375	3	31	1.022	338	654	214	3
	16.453	1	35	933	286	490	150	3
	17.381	1	30	715	238	372	124	2
	18.386	1	27	541	182	293	98	2
	19.500	1	17	398	112	243	67	2
	21.365	2	11	239	105	200	86	3
	22.416	3	11	169	83	193	102	2
	23.478	2	15	210	86	147	60	2
	24.416	3	17	426	115	251	67	2
	25.375	3	27	595	197	310	101	2
	26.386	2	42	464	169	257	98	2
	28.396	1	11	293	76	163	42	3
	30.478	2	19	446	130	418	122	2
	Mean Value			813	228	567	165	

EXPLANATIONS

N = Rome Group Number

 φ° = Heliographic latitude λ° = Heliographic longitude ω° = Position angle of the spot ξ = Spot distance from the center in centymes of the solar radius

T = Group type

G = Number of the observed groups

n = Number of the observed spots

Q = Quality of the solar image: 1 - Very poor; 2 - Fair; 3 - Good;
4 - Very good; 5 - Excellent.A_d = Apparent total area (in millionths of the solar disk)A'_d = Apparent umbra area (" " " " " ")A_H = Corrected total area (in millionths of the solar hemisphere)A'_H = Corrected umbra area (" " " " " ")

TABLE II

Heliographic position, classification and area of the sunspot - groups
by M. Torelli.

N.	date u. t.	γ°	L°	ω°	S	A_d	A_d^*	A_H	A_H^*	n	T	Q
4027	4.382-8-62	-6	6	-	-	-	-	-	-	1	-	2
	5.416-8-62	-6	6	272	52	22	10	13	6	1	J	4
4028	6.361-8-62	-	-	-	-	-	-	-	-	6	C	1
	7.361-8-62	-	-	-	-	-	-	-	-	1	J	1
	8.366-8-62	-	-	-	-	-	-	-	-	1	J	1
4029	13.366-8-62	6	235	280	1	121	80	80	40			
		7	230	90	3	89	70	44	35			
						210	150	104	75	11	G	3
	14.358-8-62	6	235	283	28	83	48	43	25			
		7	230	287	21	149	80	76	41			
						232	128	119	66	16	D	3
	15.434-8-62	6	235	287	50	175	86	101	50			
		7	230	287	43	557	200	308	111			
						732	286	409	161	19	D	2
	16.381-8-62	6	235	290	70	83	48	58	33			
		7	230	290	61	334	111	211	70			
						417	159	269	103	21	D	3
	17.378-8-62	6	235	291	84	89	35	82	32			
		7	230	290	78	293	84	234	51			
						382	99	316	83	20	D	3
	18.433-8-62	6	235	292	94	64	18	93	23			
		7	230	292	90	191	60	219	69			
						255	76	312	92	11	G	1
	19.350-8-62	7	230	293	97	54	35	177	72	3	J	3

N.	date u. t.	γ°	L°	ω°	S	A_d	A_d^*	A_H	A_H^*	n	T	Q
4030	14.381-8-62	3	152	106	92	70	58	89	78			
		2	148	107	93	86	64	117	87			
						156	122	206	160	8	D	3
	15.434-8-62	3	152	106	80	48	25	40	21			
		2	148	107	84	213	54	196	50			
						261	79	236	71	10	D	2
	16.381-8-62	3	152	110	63	95	51	61	33			
		2	148	112	71	197	70	140	50			
						292	121	201	83	13	D	3
	17.378-8-62	3	152	113	47	67	32	38	18			
		2	148	116	52	264	64	155	32			
						331	86	193	50	14	C	3
	18.433-8-62	2	148	127	29	210	48	110	25	8	J	1
	19.350-8-62	2	148	160	12	207	44	104	22	6	J	3
	20.363-8-62	2	148	258	17	143	44	73	22	2	J	3
	21.416-8-62	2	148	277	33	124	41	67	22	6	J	3
	22.372-8-62	2	148	281	59	111	35	69	22	2	J	1
	23.394-8-62	2	148	287	76	108	32	83	24	5	J	1
	24.370-8-62	2	148	338	88	48	26	50	27	2	J	2
	25.378-8-62	2	148	291	97	32	13	65	26	1	J	1
4031	17.378-8-62	2	140	112	66	60	25	40	17	4	C	3
	18.433-8-62	2	140	118	32	67	19	35	10	6	C	1
	19.350-8-62	3	141	128	20	127	41	65	21			
		2	137	129	23	134	64	69	33			
						261	105	134	54	16	D	3
	20.363-8-62	3	141	220	7	127	48	64	24			
		2	137	178	8	140	70	70	35			
						267	118	134	59	20	D	3

OSSERVATORIO ASTRONOMICO DI ROMA (Direttore prof. Massimo Cimino)

Circolare N.58

FENOMENI SOLARI

osservati nel mese di Ottobre 1962

TABLE I

Daily Total areas of the sunspot - groups, by A. Boccitto and M. Torelli.

	date u. t.	G	n	A_d	A_d^1	A_H	A_H^1	Q
1962	1.381	3	26	595	195	461	154	2
October	2.388	1	22	601	159	357	96	3
	3.388	1	25	436	153	283	92	2
	4.388	1	13	325	90	153	55	2
	5.385	1	11	191	57	96	23	3
	6.348	3	6	175	51	91	27	2
	8.443	2	7	111	43	78	23	1
	9.398	4	15	64	35	60	33	3
	10.405	3	39	382	166	261	113	2
	17.375	2	23	255	125	123	72	3
	18.366	2	35	159	73	105	46	3
	19.372	3	15	-	-	-	-	1
	20.385	3	8	197	74	279	99	2
	21.458	2	10	-	-	-	-	1
	22.388	2	21	573	156	411	114	4
	23.375	2	16	557	178	344	109	3
	25.342	3	22	540	150	303	89	2
	26.366	2	16	493	105	326	68	2
	27.451	3	21	446	102	248	59	2
	30.406	1	5	213	64	207	62	1
	Mean Value			351	110	231	74	

N°	date u. t.	S°	L°	ω°	S	A_d	A_d^1	A_H	A_H^1	n	T	Q
4037	3.416-9-62	-13	236	128	99	44	10	153	34	-	C	2
	4.375-9-62	-13	236	130	94	155	32	224	93	3	C	4
	6.385-9-62	-13	236	141	68	229	70	156	48	8	C	4
	7.385-9-62	-13	236	150	53	302	80	273	72	12	C	2
	8.424-9-62	-13	236	171	40	233	64	130	35			
		-13	231	165	43	207	70	115	39			
						445	134	245	74	15	D	3
	9.426-9-62	-13	236	205	32	191	64	101	34			
		-13	231	103	33	111	64	59	33			
						302	123	160	37	13	D	2
	10.378-9-62	-13	236	233	39	175	64	95	35			
		-13	231	223	33	108	64	58	34			
						233	123	153	69	16	D	3
	11.375-9-62	-13	236	253	56	191	41	115	25	3	J	2
	12.368-9-62	-13	236	263	71	172	35	122	25	4	J	2
	13.368-9-62	-13	236	274	84	165	32	152	29	1	J	3
	14.388-9-62	-13	236	273	94	92	22	135	32	1	J	2
	15.375-9-62	-13	236	280	99	41	10	145	34	-	J	3

EXPLANATIONS

N = Rome Group Number

S° = Heliographic latitude

L° = Heliographic longitude

ω° = Position angle of the spot

S = Spot distance from the center in centymes of the solar radius

T = Group type

G = Number of the observed groups

n = Number of the observed spots

Q = Quality of the solar image: 1 - Very poor; 2 - Fair; 3 - Good;

4 - Very good; 5 - Excellent.

A_d = Apparent total area (in millionths of the solar disk)

A_d^1 = Apparent umbra area (" " " " " ")

A_H = Corrected total area (in millionths of the solar hemisphere)

A_H^1 = Corrected umbra area (" " " " " ")

TABLE II

Heliographic position, classification and area of the sunspot - groups
by M. Torelli.

N.	date u. t.	φ°	L°	ω°	S	A_d	A'_d	A_H	A'_H	n	T	Q
4032	19.350-8-62	9	77	99	95	26	-	41	-	1	A	3
4033	24.370-8-62	-3	11	275	98	-	-	-	-	5	-	2
4034	29.346-8-62	-7	327	-	-	-	-	-	-	5	-	1
	30.392-8-62	-7	327	128	69	57	16	44	11	4	C	3
	31.390-8-62	-6	331	133	47	25	9	14	55			
		-7	327	128	49	23	10	16	5			
						53	19	30	10	3	O	2
	1.406-9-62	-6	331	166	28	64	32	33	17			
		-7	327	160	31	54	32	23	17			
						118	64	61	34	9	D	3
	2.500-9-62	-6	331	209	23	111	32	57	16			
		-7	327	225	23	165	102	95	52			
						276	134	142	63	26	D	3
	3.416-9-62	-6	331	256	35	70	43	37	25			
		-7	327	248	31	127	70	67	37			
						197	113	104	62	19	D	2
	4.375-9-62	-6	331	270	52	57	35	33	20			
		-7	327	267	50	102	33	59	22			
						159	73	92	42	10	D	4
	6.385-9-62	-7	327	280	81	19	3	16	3	3	J	4
4035	30.392-8-62	10	325	103	59	10	6	6	4			
		9	320	107	70	54	32	33	22			
						64	33	44	26	8	D	3
	31.390-8-62	10	325	106	43	64	22	36	13			
		9	320	107	53	60	6	36	4			
						124	23	72	17	14	LD	2

N.	date u. t.	φ°	L°	ω°	S	A_d	A'_d	A_H	A'_H	n	T	Q
4035	1.406-9-62	10	325	103	32	143	70	76	37			
		9	320	101	28	111	41	53	21			
						254	111	134	53	20	D	3
	2.500-9-62	10	325	80	8	207	80	104	40			
		9	320	20	4	134	48	67	24			
						341	123	171	64	34	D	3
	3.416-9-62	10	325	305	23	372	95	191	49			
		9	320	315	13	366	111	135	56			
						739	206	376	105	33	E	2
	4.375-9-62	10	325	301	43	684	153	379	85			
		9	320	304	34	827	143	440	76			
						1511	296	819	161	39	E	4
	6.385-9-62	10	325	302	77	445	95	349	75			
		9	320	303	70	477	92	334	65			
						922	187	633	140	15	E	4
	7.385-9-62	10	325	302	90	255	86	292	98			
		9	320	303	84	293	51	270	47			
						543	137	562	145	8	G	2
	8.424-9-62	10	325	302	93	80	43	200	120			
		9	320	302	95	159	32	254	51			
						239	80	454	171	-	G	3
4036	1.406-9-62	6	255	109	99	80	32	232	90	-	H	3
	2.500-9-62	6	255	109	92	270	70	345	89	3	H	3
	3.416-9-62	6	255	111	83	429	95	335	86	3	H	2
	4.375-9-62	6	255	113	71	525	102	373	72	4	H	4
	6.385-9-62	6	255	117	32	573	134	302	70	7	H	4
	7.385-9-62	6	255	124	10	621	140	312	70	12	H	2
	8.424-9-62	6	255	284	12	700	146	352	74	7	H	3
	9.426-9-62	6	255	293	37	652	143	350	77	7	H	2
	10.378-9-62	6	255	294	56	539	134	355	80	6	H	3
	11.375-9-62	6	255	297	72	477	127	344	92	6	H	2
	12.363-9-62	6	255	298	87	366	95	371	97	4	H	2
	13.363-9-62	6	255	299	96	207	33	369	63	3	H	3

N.	date u. t.	φ°	L°	W°	S	A_d	A'_d	A_H	A'_H	n	T	Q
4046	25.375-9-62	15	42	322	32	111	48	59	25			
		15	37	329	28	102	38	53	20			
						213	86	112	45	8	C	2
	26.366-9-62	15	42	314	52	32	35	37	20			
		15	37	319	46	51	22	29	12			
						83	57	66	32	5	C	2

EXPLANATIONS

N = Rome Group Number

 φ° = Heliographic latitude L° = Heliographic longitude W° = Position angle of the spot S = Spot distance from the center in centymes of the solar radius

T = Group type

G = Number of the observed groups

n = Number of the observed spots

Q = Quality of the solar image: 1 - Very poor; 2 - Fair; 3 - Good;
4 - Very good; 5 - Excellent. A_d = Apparent total area (in millionths of the solar disk) A'_d = Apparent umbra area (" " " " " ") A_H = Corrected total area (in millionths of the solar hemisphere) A'_H = Corrected umbra area (" " " " " ")

- LITOGRAFIA "NICOLETTI & TERNENZI" - Roma, Via del Pigneto, 162 F. - Tel. 275.607 -

"Novembre 1962"

OSSERVATORIO ASTRONOMICO DI ROMA

(Direttore prof. Massimo Cinino)

Circolare N. 59

FENOMENI SOLARI

Osservati nel mese di Novembre 1962

TABLE I.

Daily total areas of the sunspot - groups, by A. Boccitto and M. Torelli.

	date u. t.	G	n	A_d	A'_d	A_H	A'_H	Q
1962	1.436	0	0	0	0	0	0	-
November	2.335	1	6	113	45	64	24	2
	3.434	1	9	102	64	61	37	3
	4.447	1	6	-	-	-	-	1
	12.416	4	15	734	204	421	126	2
	13.396	3	60	993	363	618	241	3
	16.396	4	63	1240	566	810	367	2
	19.542	2	-	636	197	397	119	3
	20.453	2	12	239	80	185	62	2
	21.331	2	7	143	57	151	60	1
	23.396	0	0	0	0	0	0	-
	24.335	1	7	96	44	51	24	2
	25.434	2	9	121	31	243	56	2
	26.362	2	6	111	48	134	58	1
	27.375	1	3	229	64	187	52	4
	30.375	1	5	318	67	162	34	3
Mean Values				339	121	522	94	

JAN 22 1963

Heliographic position, classification and area of the sunspot-groups by M. Torelli.

N.	date u. t.	β°	L°	ω°	δ	A_d	A'_d	A_H	A'_H	n	T	Q
4033	11.375-9-62	22	163	89	74	-	-	-	-	1	-	2
	12.368-9-62	22	163	83	56	44	22	27	13	5	J	2
4039	11.375-9-62	21	130	92	93	-	-	-	-	4	-	2
	12.368-9-62	21	136	93	97	175	70	178	71			
		21	130	94	90	29	13	33	15			
						204	93	211	96	10	C	2
	13.368-9-62	21	136	92	72	350	111	252	80			
		21	130	93	77	191	70	160	55			
						541	181	402	135	15	D	3
	14.398-9-62	21	136	88	54	429	111	255	66			
		21	130	90	62	223	95	142	61			
						652	206	397	127	30	D	2
	15.375-9-62	21	136	74	37	557	175	299	94			
		21	130	83	47	444	1453	254	96			
						971	328	533	180	30	E	3
	16.453-9-62	21	136	33	24	477	127	246	66			
		21	130	61	32	461	159	244	54			
						938	286	490	150	36	E	3
	17.381-9-62	21	136	360	23	445	127	232	66			
		21	130	36	26	270	111	140	59			
						715	233	372	124	30	D	2
	18.396-9-62	21	136	333	40	414	118	226	64			
		21	130	351	32	127	64	67	34			
						541	182	293	98	27	D	2
	19.500-9-62	21	136	324	59	313	83	197	51			
		21	130	332	50	80	29	46	16			
						398	112	243	67	17	D	2
	21.363-9-62	21	136	317	86	159	67	156	65	5	J	3
	22.378-9-62	21	136	317	95	64	41	102	66	3	J	3

[illegible]

N.	date u. t.	φ°	L°	ω°	S	A_d	A'_d	A_H	A'_H	n	T	Q
4054	23.375-10-62	11	339	110	58	429	111	284	63			
		11	332	107	69	80	35	55	24			
						509	146	319	92	12	D	3
	25.342-10-62	11	339	90	7	429	102	216	51			
		11	332	92	16	-	-	-	-			
						429	102	216	51	14	D	2
	26.336-10-62	11	339	340	10	420	99	211	45	9	H	2
	27.451-10-62	11	339	313	33	414	96	219	45	-	H	2
	30.406-10-62	11	339	304	86	213	64	207	62	5	H	1

EXPLANATIONS

N = Rome Group Number

φ° = Heliographic latitude

L° = Heliographic longitude

ω° = Positions angle of the spot

S = Spot distance from the center in centymes of the solar radius

T = Group type

G = Number of the observed groups

n = Number of the observed spots

Q = Quality of the solar image: 1 - Very poor; 2 - Fair; 3 - Good;
4 - Very good; 5 - Excellent.

A_d = Apparent total area (in millionths of the solar disk)

A'_d = Apparent umbra area (" " " " " ")

A_H = Corrected total area (in millionths of the solar hemisphere)

A'_H = Corrected umbra area (" " " " " ")

The A values in italics in Table I indicate that they are partial areas, because of the difficulty of measuring the area of some sunspot-groups.

OSSERVATORIO ASTRONOMICO DI ROMA

(Direttore prof. Massimo Cimino)

Circolare N.60

FENOMENI SOLARI

osservati nel mese di Dicembre 1962

TABLE I

Daily Total areas of the sunspot - groups, by A. Boccitto and M. Torelli.

	date u. t.	G	n	A_d	A'_d	A_H	A'_H	Q
1962	1.402	2	-	525	169	278	91	2
December	2.436	2	10	563	185	294	96	3
	3.447	3	-	627	313	529	170	3
	4.396	4	17	639	181	527	146	3
	5.485	4	26	461	161	385	135	3
	6.401	4	11	497	203	392	160	2
	7.406	2	9	429	159	253	94	2
	8.465	1	6	445	111	176	59	4
	9.465	2	20	270	95	139	49	2
	11.385	1	4	73	35	41	15	1
	14.479	1	-	80	32	41	16	2
	15.398	1	4	70	19	36	10	1
	17.366	1	5	191	61	132	42	2
	18.385	2	24	255	99	151	56	2
	19.366	2	23	536	185	303	98	2
	21.360	1	-	455	172	286	109	3
	22.406	1	17	292	89	245	73	3
	23.436	2	17	192	77	241	95	2
	24.438	3	15	207	67	289	83	2
	27.458	0	0	0	0	0	0	-
	29.519	0	0	0	0	0	0	-
	Mean Value			326	115	226	76	

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" DICEMBRE 1962 "

FEB 1 - 1963

TABLE II.

Heliographic position, classification and area of the sunspot-groups by M. Torelli.

N.	date u. t.	φ°	L°	ω°	s	A_d	A'_d	A_H	A'_H	n	T	Q
4047	20.478-9-62	8	264	112	81	57	25	49	22			
		9	256	111	86	80	16	78	16			
		7	256	114	86	207	54	202	53			
						344	95	329	91	14	C	2
	1.381-10-62	8	264	113	66	90	26	53	17			
		9	266	112	73	143	54	105	39			
		7	256	116	73	270	70	197	51			
						493	150	355	107	21	D	2
	2.398-10-62	8	264	112	45	60	32	34	18			
		9	256	111	57	229	60	139	37			
		7	256	116	57	302	67	184	41			
						601	159	357	96	22	D	3
	3.398-10-62	8	264	110	22	48	26	24	13			
		9	256	111	38	86	57	46	31			
		7	256	117	37	302	70	163	33			
						436	153	233	92	25	D	20
	4.398-10-62	8	264	360	2	35	13	17	6			
		9	256	107	15	63	38	42	19			
		7	256	122	13	207	29	104	30			
						325	90	153	55	13	D	2
	5.385-10-62	7	256	290	7	191	57	96	28	11	J	3
	6.348-10-62	7	256	300	29	175	51	91	27	2	J	2
	8.443-10-62	7	256	293	70	111	49	78	23	1	J	1
	9.398-10-62	7	256	299	95	64	35	60	33	1	J	3
4048	1.381-10-62	11	290	169	40	32	13	17	7	2	J	2
4049	8.443-10-62	3	172	114	67	99	60	60	41	6	J	1
	9.398-10-62	3	172	124	46	146	57	82	32	5	J	3
	16.465-10-62	3	172	302	92	64	29	81	36	1	J	2

N.	date u. t.	φ°	L°	ω°	s	A_d	A'_d	A_H	A'_H	n	T	Q
4050	9.398-10-62	5	161	118	63	35	15	22	8	2	C	3
4051	9.398-10-62	-11	131	133	95	197	53	315	61	7	J	3
	16.465-10-62	-9	133	270	52	90	32	47	19			
		-11	131	266	53	95	41	56	24			
						175	73	103	43	16	G	2
	17.375-10-62	-9	133	273	69	41	13	28	9			
		-11	131	269	69	64	32	44	22			
						105	45	72	31	7	G	3
	18.366-10-62	-9	133	280	61	32	10	27	8			
		-11	131	277	61	38	19	33	16			
						70	29	60	24	6	G	3
	19.372-10-62	-9	133	283	94	-	-	-	-	9	J	1
4052	16.465-10-62	4	82	127	38	143	64	77	34			
		9	77	129	48	-	-	-	-			
						143	64	77	34	22	D	2
	17.375-10-62	4	82	128	17	70	32	35	16			
		0	77	128	25	80	48	41	25			
						150	80	76	41	31	D	3
	18.366-10-62	4	82	220	3	99	44	45	22			
		0	77	-	-	-	-	-	-			
						99	44	45	22	9	C	3
	19.372-10-62	0	77	-	-	-	-	-	-	9	J	1
	20.385-10-62	0	77	232	40	32	13	17	7	3	J	2
4053	19.372-10-62	11	355	108	95	-	-	-	-	3	J	1
	20.385-10-62	11	355	107	95	70	29	66	27	2	J	2
	21.458-10-62	11	355	105	69	-	-	-	-	3	J	1
	22.398-10-62	11	355	109	52	159	41	93	24	3	J	4
	23.375-10-62	11	355	103	32	49	32	25	17	4	J	3
	25.342-10-62	11	355	331	13	25	13	13	6	2	J	2
4054	20.385-10-62	11	339	106	97	95	32	196	65	3	C	2
	21.458-10-62	11	339	106	97	-	-	-	-	7	C	1
	22.398-10-62	11	339	110	74	334	80	248	59			
		11	332	108	82	80	35	70	31			
						414	115	318	90	18	D	4