

THE UNIVERSITY OF NEW MEXICO

DEPARTMENT OF PHYSICS AND ASTRONOMY

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9 Feb 1981

Dear Dick,

Here is the list of surface-brightness versus radius data for NGC 315 at 20cm (WSRT data). A plot of "Peak flux" versus "Deconv. HPBW" is what should be fitted by the theoretical model.

Hope to improve on this eventually from our VLA run for distances $< 30''$ from nucleus.

How's the draft of the theory coming?

Best wishes

Alan

P.S. I have written to Alan Better to prod him about our paper in JRASC

NGC 315 I(R)

- WSRT data 20cm

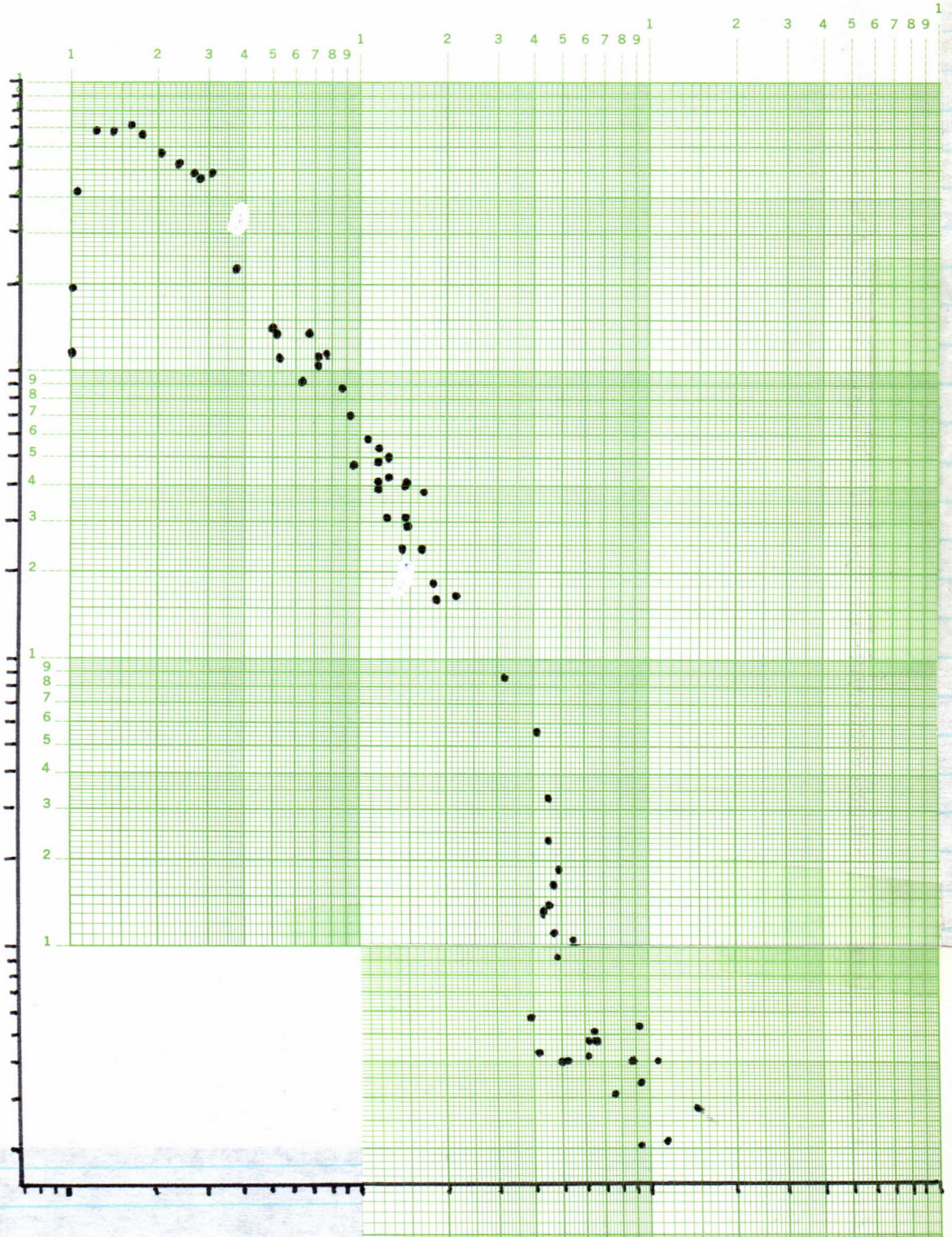
Gaussian 1199
Beam area 1058 (arcsec)²

POSITION	DIST FROM NVC	RAW HPBW	BEAM	DECONV HPBW	PEAK FLUX	mJy/beam		VLA scaled	
						mJy	mJy/1/2	DECONV HPBW	PEAK FLUX
1	(30" steps)	38".02	33"	18".9	2.0			2.0	6.16
2		39.96		22.5	200		1.67×10^{-1}	9.1	1.37
3		46.4		32.7	102	9.6×10^{-2}	8.5×10^{-2}	28.0	2.25×10^0
4		52.9		41.4	67	6.3	5.6×10^{-3}		
5		56.2		45.4	39	3.69			
6		56.2		45.4	28	2.65			
7		59.4		49.4	22	2.08			
8		58.3		48.1	20	1.89			
9		54.4		43.3	15.5	1.47			
10		58.3		48.1	10.8	1.02			
11		63.7		54.5	12.7	1.20			
12		54.0	30".4	44.6	17.0	1.61			
13		55.6		46.6	13.2	1.25			
14		48.8		38.2	6.8	6.4×10^{-3}			
15		51.8		42.0	5.2	4.9			
16		60.5		52.3	4.8	4.5			
17		68.3		61.1	5.9	5.6			
18		70.2		63.3	5.9	5.6			
19		71.3		64.5	6.2	5.9			
20		70.2		63.3	4.9	4.6			
21		95.7		90.7	6.4	6.1			
22		93.7		88.7	4.8	4.5			
23		96.3		91.4	4.1	3.88			
24		81.2		75.3	3.7	3.5			
25		95.0		90.1	2.5	2.36			

NGC 315 I(R) cont'd

NATIONAL
42-384
WASHINGTON, D.C.

POSITION	RAW HPBW	BEAM	DECONV HPBW	PEAK FWX	
26	58.5	30.4	50.0	(4?)	- bad
27	121.0		117	2.2	2.08×10^{-3}
28	148.4		145	3.3	3.12
29	113.6		109.5	4.8	4.53
30	117.3		113.3	(7.7)	



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