

1 Additional tables

Here we present additional tables and data used in this paper. Fig. 1 shows the three other ArTéMiS fields. Centers of the empty reference regions are listed in Table 2, uncertainties on symmetric and asymmetric fits to an ideal filament in Tables 3 and 4, and median SNR_{filament} of each field in Table 5 for all quality flags. Finally, the results of wavelet analysis are shown in Table 6.

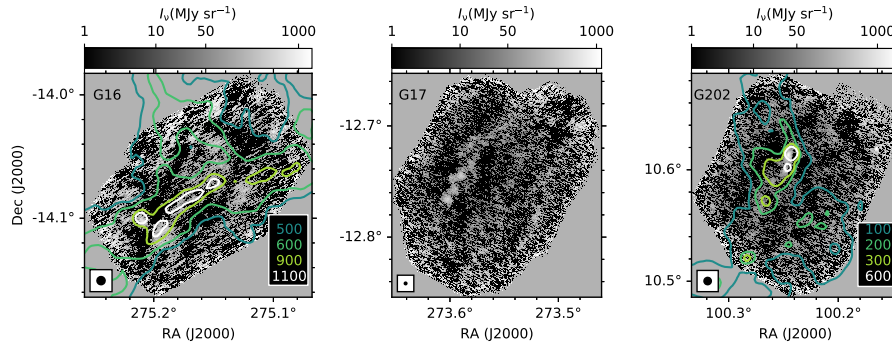


Figure 1: ArTéMiS $350\,\mu\text{m}$ surface brightness maps (grayscale) of the G16, G17, and G202 fields. For G16 and G202, the contours show *Herschel* $350\,\mu\text{m}$ surface brightness, with contour levels (in MJy/sr) listed in the frames. The *Herschel* beam is shown in the G16 and G202 frames, and the ArTéMiS beam in the G17 frame.

Table 1: Parameters of the ArTéMiS observations

Field	RMS noise (MJy sr ⁻¹)	Max. signal (MJy sr ⁻¹)	Max. SNR
G16	254.6	1174.7	4.6
G17	133.5	612.7	4.6
G202	140.0	1970.6	14.1
G208	181.7	12452.0	68.5

Table 2: Coordinates and radii of the reference regions used for noise estimation.

Field	ra ($^{\circ}$)	dec ($^{\circ}$)	radius ($^{\circ}$)	instrument
G017.69-00.15	275.26	-13.92	0.03	<i>Herschel</i>
G202.16+02.64	100.39	10.65	0.03	<i>Herschel</i>
G208.63-20.36	83.69	-5.00	0.03	<i>Herschel</i>
G16	275.16	-14.07	0.02	ArTéMiS
G17	273.53	-12.73	0.02	ArTéMiS
G202	100.22	10.59	0.02	ArTéMiS
G208	83.89	-5.04	0.02	ArTéMiS

Table 3: Uncertainties on symmetric fits of a simulated filament.

(1) Variable	(2) Initial value	(3) Mean $\pm$ std	(4) Median
R_{flat} (pix)	6.0	5.9 ± 0.25	5.9
p	1.75	1.73 ± 0.044	1.72
$FWHM$ (pix)	27.8	28.3 ± 0.83	28.2
Δr (10^{-2} pix)	0.0	-0.36 ± 2.0	-0.41
a	0.00	-0.00 ± 0.020	-0.00
b (10^{-3})	0.2	0.2 ± 0.02	0.2
N_0 (10^{22} cm^{-2})	1.0	1.0 ± 0.02	1.0

Plummer parameters of a simulated filament over a powerlaw background. The initial Plummer parameters are listed in column 2, the mean $\pm$ standard deviation recovered values in column 3, and the median recovered value in column 4.

Table 4: Uncertainties on asymmetric fits of a simulated filament.

(1)	(2)	(3)	(4)
Variable	Initial value	Mean $\pm$ std	Median
R_L (pix)	6.0	6.0 ± 0.40	6.1
R_R (pix)	6.0	5.9 ± 0.41	5.9
$\langle R_{\text{flat}} \rangle$ (pix)	6.0	5.9 ± 0.24	6.0
p_1	1.75	1.75 ± 0.054	1.75
p_2	1.75	1.73 ± 0.061	1.73
$\langle p \rangle$	1.75	1.74 ± 0.048	1.74
$FWHM$ (pix)	27.8	27.9 ± 1.01	27.8
Δr (pix)	0.0	-0.023 ± 0.19	-0.047
a	0.00	0.00 ± 0.023	0.00
b (10^{-3})	0.2	0.1 ± 0.2	0.1
N_0 (10^{22} cm^{-2})	1.0	1.0 ± 0.03	1.0

Same as Table 3, but using an asymmetric Plummer fit.

Table 5: Median SNR of the filament in each quality flag.

Field	SNR			
	$q = 1$	2	3	4
G17	12.6	9.1	6.9	4.5
G202	63.8	39.7	28.8	22.1
G208 $N_{\mathcal{H}}$	31.1	14.6	8.5	4.4
G208 $N_{\mathcal{H}, \text{crop}}$	122.6	67.2	51.1	28.4
G208 $N_{\mathcal{F}}$	100.9	54.1	39.4	21.0

Table 6: Results of the wavelet analysis in Sect. 3.6.2.

Field	Level	Size (pc)	n_{struct}	$\langle N(\text{H}_2) \rangle$ ($\times 10^{22} \text{ cm}^{-2}$)	$\langle n(\text{H}) \rangle$ (10^5 cm^{-3})	$\sum M$ ($M_{\odot}$)	$\langle s \rangle$ (pc)
G017	10	3.0	2	1.01	0.06	2192.4	6.32
	9	2.0	3	1.46	0.17	1062.0	3.04
	8	1.0	4	1.70	0.28	936.8	1.79
	7	0.75	5	1.77	0.39	618.9	-
	6	0.5	8	1.84	0.55	449.5	-
	5	0.25	10	1.81	0.68	357.5	0.81
	4	0.1	9	1.82	0.75	293.2	-
	3	0.075	9	1.82	0.74	289.4	-
	8	1.0	1	0.70	0.00	409.5	1.82
	7	0.75	1	0.72	0.00	399.8	0.89
G202	6	0.5	3	0.80	0.15	226.7	-
	5	0.25	5	1.06	0.31	149.2	0.33
	4	0.1	3	1.58	0.55	147.7	-
	3	0.075	7	1.54	0.94	60.8	-
	2	0.05	9	1.52	1.14	63.0	-
	1	0.025	9	1.53	1.16	63.0	0.30
	8	1.0	1	2.53	0.00	607.2	1.07
	7	0.75	1	2.37	0.00	641.4	-
	6	0.5	2	3.27	0.68	431.7	0.55
	5	0.25	1	2.63	0.00	110.6	0.32
G208 ($N_{\mathcal{H}}$)	4	0.1	4	5.14	2.37	121.8	0.20
	3	0.075	4	11.03	8.69	162.1	-
	2	0.05	7	13.66	19.38	50.7	0.11
	1	0.025	7	13.52	19.85	48.5	-
	6	0.5	1	2.88	0.00	162.9	-
	5	0.25	1	3.75	0.00	134.5	0.35
	4	0.1	0	-	-	0.0	0.14
	3	0.075	3	5.43	5.68	52.5	-
	2	0.05	5	6.57	14.14	22.8	0.09
	1	0.025	9	6.33	15.83	28.6	0.03

Columns 2-3 list the sizes of the structures in each category, column 4 the number of structures, columns 5-6 the mean column and volume densities, column 7 the total gas mass, and column 8 the separation between adjacent structures.