

Gibajoča se kopica zvezd je skupina takih zvezd, ki imajo približno enake hitrosti in se po prostoru gibljejo kot enotna kopica v isti smeri. V preglednici so podane razdalje do vesoljskih teles ( $r$ ), njihove ekvatorialne koordinate ( $\alpha$ ,  $\delta$ ), galaktične koordinate (longituda  $l$  in latituda  $b$ ) glede na ravnino naše Galaksije in tri komponente njihovih hitrosti ( $v_x$ ,  $v_y$ ,  $v_z$ ) v smereh  $x$ ,  $y$ ,  $z$  v določenem koordinatnem sistemu. Na podlagi razpoložljivih podatkov v tabeli označi zvezde, ki pripadajo posamezni gibajoči se kopici. Oceni tudi velikost posamezne gibajoče se kopice.

Št.	$r$ (parsek)	$\alpha$	$\delta$	$l$	$b$	$v_x$ (km/s)	$v_y$ (km/s)	$v_z$ (km/s)
<del>1</del>	88,1	9h31min16s	-64°14'27"	283,2°	-9,3°	-16,08	-30,4	-0,94
<del>2</del>	10,5	23h7min54s	+75°23'15"	116,4°	+13,9°	8,31	-11,2	-2,415
<del>3</del>	98,0	8h5min3s	-60°38'41"	277,6°	-10,0°	-19,44	-27,8	-2,22
<del>4</del>	89,1	21h14min32s	+63°35'35"	101,5°	+10,0°	-7,313	-19,12	4,6
<del>5</del>	18,8	4h 2min36s	-0°16'8"	190,7°	-36,9°	-7,85	-28	-11,79
<del>6</del>	91,7	9h 20min37s	-63°10'0"	281,6°	-9,4°	-16,59	-27,9	-0,70
<del>7</del>	77,2	9h 48min19s	-64°3'22"	284,5°	-8,0°	-16,28	-28,32	-0,903
<del>8</del>	36,5	3h 33min13s	+46°15'26"	149,9°	-8,0°	-6,53	-27,84	-16,57
<del>9</del>	156,8	23h18min38s	+68°06'40"	114,2°	+6,5°	-10,15	-15,2	-3,7
<del>10</del>	32,3	14h47min33s	-0°16'53"	353,2°	+51,0°	-9,66	-28,07	-10,7
<del>11</del>	80,4	9h 10min58s	-58°58'3"	277,6°	-7,4°	-1,53	-18,3	0,34
<del>12</del>	87,1	8h 58min45s	-69°8'1"	284,9°	-15,1°	-16,59	-27,5	-1,44
<del>13</del>	174,0	23h 30min2s	+58°32'56"	112,5°	-2,6°	-9,3	-30,1	-1,2
<del>14</del>	24,4	1h 16min29s	+42°56'22"	127,8°	-19,7°	28,2	1,7	7,2
<del>15</del>	22,1	4 h 15min26s	+6°11'59"	186,7°	-30,5°	24,5	3,9	-1,6
<del>16</del>	33,3	2h 12min15s	+23°57'30"	145,7°	-35,3	-8,22	-27,41	-12,52
<del>17</del>	23,0	15h34min41s	+26°42'53"	41,9°	+53,8°	24,2	8,3	-0,3
<del>18</del>	38,8	3h 9min42s	-9°34'36"	191,3°	-53,0°	-5,24	-27,92	-9,75
<del>19</del>	82,3	10h20min51s	-58°32'49"	284,7°	-1,3°	-14,44	-26,6	-3,772
<del>20</del>	34,5	22h 20min7s	+49°30'12"	99,3°	-6,3°	-9,65	-23,44	-4,86
<del>21</del>	21,4	21h 31min1s	+23°20'7"	74,3°	-20,1°	-6,5	-29,07	-13,15
<del>22</del>	23,6	1h 49min23s	-10°42'13"	165,4°	-68,7°	27,6	4,7	3,5
<del>23</del>	18,8	4h 9min35s	+69°32'29"	139,2°	+13,0°	-7,8	-24,02	-17,15
<del>24</del>	22,4	7h 49min55s	+27°21'47"	193,3°	+24,1°	23,8	7,6	-0,5
<del>25</del>	22,8	1h 36min43s	+7°49'54"	142,0°	-53,3°	-2,13	5,3	-12,8
<del>26</del>	160,2	23h 3min21s	+58°33'50"	109,2°	-1,3°	-25,6	-18,1	7,4
<del>27</del>	28,3	0h 18min20s	+30°57'22"	114,6°	-31,4°	-4,43	-27,8	-15,7
<del>28</del>	22,2	6h 39min50s	-61°28'43"	271,2°	-25,0°	-7,71	-28,32	-14,37
<del>29</del>	1132	20h25min27s	-28°39'48"	14,5°	-32,0°	5,61	-15,22	-4,84
<del>30</del>	1231	19h35min57s	-53°0'31"	344,4°	-27,9°	-4,13	-18,24	7,5



No.	$r_{pc}$	No	$v_x$	$v_y$	$v_z$	Tomaž Holc
2	10,5	1	-16	-30	-1	
5	18,8	3	-19	-27	-2	
23	18,8	6	-16	-27	-1	
21	21,4	7	-16	-28	-1	
15	22,1	12	-16	-27	-1	
28	22,2	18	-14	-26	-3	
24	22,4	5	-8	-28	-11	
25	22,8	10	-10	-28	-10	
17	23,0	16	-8	-27	-12	
22	23,6	21	-6	-28	-13	
14	24,1	27	-4	-27	-15	
27	28,3	28	-7	-28	-14	
10	32,3					
16	33,3					
20	34,5					
8	36,5					
18	38,8					
7	77,2					
11	80,4					
19	82,3					
12	87,1					
1	88,1					
4	89,1					
6	91,1					
3	98,1					
9	156,8					
26	160,2					
13	174,0					
29	1132					
30	1231					

1st group (10-40) lenght

2nd group (75-100) lenght

3rd g. lenght (150-175)

4th g. (1000+) lenght



~~XX~~ Tomaz Holc  
If we look at the data we can see that stars fall into 4 groups by length to them (1. 10-40, 2. 75-100, 3. 150-175 and 4. 1000+(all in pc)).

There are a lot of stars with  $v_x$  between -14 and -20 (1, 3, 6, 7, 12, 19). These also all happen to have  $v_y$  between -26 and -30 and  $v_z$  between -1 and -4. They also have  $\alpha$  between  $8^{\text{h}}$  and  $10^{\text{h}}$ ,  $\delta$  between  $-58$  and  $-70$   $l$  between  $277$  and  $285$  and  $b$  between  $-1$  and  $-15$ . They also fit in the group that has is 75pc-100pc away from us.

The first star group is (1, 3, 6, 7, 12, 19).  
It is at least ( $r_3 - r_7 = 20, 8 \text{ pc}$ ) 20, 8 pc in diameter. Probably more because all stars aren't on the same line.

There is also a grouping of (5, 10, 16, 21, 27, 28) who has very similar speeds ( $v_x \approx 8$ ,  $v_y \approx -28$  and  $v_z \approx -12$ ). They are also between 13 and 33 kpc away from us. Sadly each one fails at least at 1 of the  $\alpha$ ,  $\delta$ ,  $l$  and  $b$  values. If they are a group they are ( $r_{16} - r_5 = 15 \text{ pc}$ ) at least 15 pc in diameter.



We also have a group (15, 17, 24). It has very similar speeds and is between 23 and 25 pc away from us. Sadly it also fails in  $\alpha$ ,  $\delta$ ,  $l$  and  $b$ .

There is a grouping of (8, 8, 23). It has speeds  $v_x \approx -7$ ,  $v_y \approx -26$ ,  $v_z \approx (-9) - (-17)$ . The only thing they don't have similar is their  $b$  value. If they are a group their size is at least 20 pc.

Another one that is very close is (9, 13, 26). They are the only ones between 150 and 175 pc away from us. They have similar  $\alpha$  values (23h),  $\delta$  values between  $58^\circ$  and  $68^\circ$  somewhat similar speeds and  $l/b$  values within  $8^\circ$  degrees from each other. ( $109^\circ - 114^\circ$  and  $-2,6^\circ - 6,5^\circ$ ). The size of it is at least

( $r_{13} - r_9 = 17,2 \text{ pc}$ ) 17,2 pc in diameter. Probably more because of the slight shift in degrees between them.

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