Target	HIPPARCOS Number	RA(2000)	DEC(2000)	V	B-V	Parallax [mas]	PM RA [mas yr^{-1}]	PM DEC [mas yr^{-1}]
HD 100022	HIP 56139	11 30 26.2	-15 19 20.6	9.40	0.66	9.96 ± 0.99	-68.94 ± 1.06	23.77 ± 0.60
HD 103742	HIP 58240	11 56 42.8	-32 16 04.6	7.80	0.67	21.19 ± 6.82	-174.23 ± 7.06	-13.94 ± 3.82
HD 103743	HIP 58241	11 56 44.4	-32 16 01.3	7.63	0.64	8.32 ± 10.77	-208.62 ± 11.45	-9.29 ± 6.15
HD 104471	HIP 58669	12 01 46.8	-34 39 01.4	6.91	0.59	17.77 ± 0.77	-185.50 ± 0.77	10.58 ± 0.48
HD 104551	HIP 58699	12 02 21.4	-59 59 16.4	8.80	0.65	11.81 ± 1.01	-78.11 ± 0.86	9.52 ± 0.80
HD 106489	HIP 59726	12 14 58.7	-41 08 17.9	7.49	0.65	30.72 ± 0.66	-313.55 ± 0.62	-77.16 ± 0.40
HD 106506	HIP 59764	12 15 18.8	-63 25 29.2	8.40	0.58	7.75 ± 0.73	-36.66 ± 0.79	-10.32 ± 0.66
HD 110143	HIP 61840	12 40 22.0	-49 23 55.8	7.03	0.60	18.75 ± 0.52	-27.46 ± 0.34	-111.20 ± 0.39
HD 110420	HIP 61998	12 42 19.7	-39 56 07.3	8.40	0.76	27.18 ± 0.97	-10.99 ± 0.84	-64.68 ± 0.57
HD 113553	HIP 63862	13 05 17.4	-50 51 23.0	7.90	0.69	20.42 ± 1.05	-134.07 ± 0.66	-4.12 ± 0.55
HD 115383	HIP 64792	13 16 47.6	+09 25 17.5	5.21	0.59	56.93 ± 0.26	-333.83 ± 0.25	190.25 ± 0.17
HD 118100	HIP 66252	13 34 44.1	-08 20 26.6	9.37	1.18	49.47 ± 0.72	-285.91 ± 0.70	-92.13 ± 0.38
HD 119022	HIP 66941	13 43 08.9	-69 07 38.0	7.70	0.78	8.10 ± 0.80	-32.45 ± 0.60	-21.27 ± 0.79
HD 120368	HIP 67458	13 49 27.3	-26 20 55.7	7.92	0.71	24.25 ± 0.76	-37.40 ± 0.74	-53.54 ± 0.52
HD 123732	HIP 69256	14 10 41.7	-47 46 07.1	7.56	0.59	17.34 ± 0.66	-88.43 ± 0.59	-11.33 ± 0.56
HD 131156A	HIP 72659	14 51 22.6	+19 06 07.0	4.70	0.73	149.03 ± 0.48	154.93 ± 0.40	-66.40 ± 0.45
HD 131156B	HIP 72659	14 51 22.6	+19 06 07.0	6.91	1.15	149.03 ± 0.48	154.93 ± 0.40	-66.40 ± 0.45
HD 20630	HIP 15457	03 19 20.7	+03 22 07.9	4.82	0.68	109.39 ± 0.27	269.30 ± 0.24	93.75 ± 0.22
HD 33262	HIP 23693	05 05 30.8	-57 28 27.9	4.71	0.53	85.88 ± 0.18	-30.98 ± 0.19	117.21 ± 0.19
HD 38397	HIP 26990	05 43 35.6	-39 55 26.5	8.18	0.60	18.07 ± 0.45	25.82 ± 0.32	15.07 ± 0.52
HD 43162	HIP 29568	06 13 45.3	-23 51 48.6	6.39	0.72	59.81 ± 0.49	-47.05 ± 0.28	110.88 ± 0.42
HD 52698	HIP 33817	07 01 12.9	-25 56 57.4	6.71	0.88	68.26 ± 0.61	206.43 ± 0.36	40.81 ± 0.60
HD 53143	HIP 33690	07 00 00.7	-61 20 24.1	6.82	0.79	54.56 ± 0.34	-161.59 ± 0.34	264.66 ± 0.41
HD 59967	HIP 36515	07 30 42.7	-37 20 24.5	6.64	0.63	45.84 ± 0.37	-87.27 ± 0.27	53.94 ± 0.34
HD 61005	HIP 36948	07 35 47.6	-32 12 18.2	8.20	0.68	28.29 ± 0.85	-55.71 ± 0.59	74.57 ± 0.62
HD 67199	HIP 39342	08 02 32.6	-66 01 09.9	7.18	0.87	57.77 ± 0.41	-158.06 ± 0.32	-130.32 ± 0.49
HD 72687	HIP 41967	08 33 15.5	-29 57 24.8	8.23	0.69	22.19 ± 0.80	-41.86 ± 0.42	17.68 ± 0.49
HD 73256	HIP 42214	08 36 23.6	-30 02 18.6	8.07	0.78	26.49 ± 0.64	-180.10 ± 0.35	66.82 ± 0.47
HD 74576	HIP 42808	08 43 19.3	-38 53 13.7	6.56	0.92	89.76 ± 0.37	-300.83 ± 0.26	339.75 ± 0.29
HD 75519	HIP 43290	08 49 06.2	-39 57 21.3	7.98	0.69	28.15 ± 0.49	-119.81 ± 0.38	129.58 ± 0.46
HD 90712	HIP 51228	10 27 48.1	-34 23 55.8	7.52	0.61	25.36 ± 0.74	-120.79 ± 0.72	-39.58 ± 0.77

Table 1: Fundamental astrometric data are presented for the candidate Local Association stars observed and analyzed during the course of this honors thesis study. Coordinates and photometric V/B-V data are taken from the SIMBAD database. Parallaxes and proper motions [PMs] are taken from the HIPPARCOS satellite survey.

Target	HIPPARCOS Number	HJD [days]	Radial Velocity [km s^{-1}]	Li I EW Integ. [mÅ]	Li I EW Gaussian [mÅ]
HD 100022	HIP 56139	2450859.205	14.0	–	–
HD 103742	HIP 58240	2450862.254	5.6	121	123
HD 103743	HIP 58241	2450862.227	7.0	98	111
HD 104471	HIP 58669	2450863.302	-25.5	–	–
HD 104551	HIP 58699	2450863.271	-6.2	58	69
HD 106489	HIP 59726	2450863.100	-3.8	73	76
HD 106506	HIP 59764	2450857.238	-3.0	–	–
HD 110143	HIP 61840	2450863.142	3.0	27	27
HD 110420	HIP 61998	2450863.228	-8.8	–	–
HD 113553	HIP 63862	2450857.128	-28.0	81	78
HD 115383	HIP 64792	2450863.259	-29.4	84	83
HD 118100	HIP 66252	2450859.164	-22.5	39	37
HD 119022	HIP 66941	2450859.251	7.0	–	–
HD 120368	HIP 67458	2450863.204	-20.0	–	–
HD 123732	HIP 69256	2450862.303	24.0	–	–
HD 131156A	HIP 72659	2450857.286	0.7	103	100
HD 131156B	HIP 72659	2450857.300	22.9	17	13
HD 20630	HIP 15457	2450857.936	19.0	29	32
HD 20630	HIP 15457	2450858.938	18.2	48	70
HD 20630	HIP 15457	2450859.897	17.8	42	43
HD 33262	HIP 23693	2450857.963	-0.9	77	78
HD 38397	HIP 26990	2450862.924	21.5	169	172
HD 43162	HIP 29568	2450857.032	20.6	63	64
HD 43162	HIP 29568	2450858.957	21.5	75	75
HD 52698	HIP 33817	2450860.025	11.3	15	24
HD 53143	HIP 33690	2450859.101	21.6	6	7
HD 59967	HIP 36515	2450856.972	8.3	83	88
HD 59967	HIP 36515	2450859.063	9.0	85	86
HD 61005	HIP 36948	2450860.052	21.7	183	194
HD 67199	HIP 39342	2450862.965	43.0	16	17
HD 72687	HIP 41967	2450862.989	20.5	145	149
HD 73256	HIP 42214	2450863.049	28.2	–	–
HD 74576	HIP 42808	2450857.078	11.6	62	65
HD 74576	HIP 42808	2450859.004	13.1	51	53
HD 75519	HIP 43290	2450860.145	21.0	–	–
HD 75519	HIP 43290	2450862.149	22.6	102	106
HD 90712	HIP 51228	2450863.069	18.6	107	109

Table 2: Spectroscopic data products for the Local Association candidates are presented. Heliocentric radial velocities and their Heliocentric Julian Dates [HJD] of observation are listed in columns 3 & 4. Equivalent widths [EWs] of the neutral lithium line at 6708Å are detailed, using the direct integration and Gaussian-fitting methods, in columns 5 & 6.

Target	HIPPARCOS Number	U [km s^{-1}]	V [km s^{-1}]	W [km s^{-1}]	UW/VW
HD 90712	HIP 51228	-13.9 ± 0.9	-24.3 ± 1.0	-11.3 ± 1.2	YY
HD 72687	HIP 41967	-14.7 ± 0.7	-17.1 ± 1.0	-2.8 ± 0.5	YY
HD 38397	HIP 26990	-11.5 ± 0.7	-19.4 ± 0.8	-4.1 ± 0.5	YY
HD 119022	HIP 66941	-13.1 ± 1.9	-17.5 ± 1.4	-9.3 ± 2.1	YY
HD 52698	HIP 33817	-4.2 ± 0.8	-13.4 ± 0.9	12.1 ± 0.4	Y?
HD 123732	HIP 69256	-0.3 ± 1.0	-32.8 ± 1.0	9.7 ± 0.7	YY
HD 61005	HIP 36948	-22.7 ± 2.0	-13.4 ± 1.2	-4.2 ± 1.1	N?
HD 100022	HIP 56139	-33.1 ± 3.6	-16.0 ± 1.6	7.0 ± 1.6	NY
HD 118100	HIP 66252	-28.1 ± 0.8	-14.3 ± 1.1	-18.5 ± 1.1	NY
HD 75519	HIP 43290	-32.6 ± 1.8	-16.2 ± 1.0	-0.9 ± 1.4	NY
HD 53143	HIP 33690	-25.5 ± 1.6	-18.0 ± 1.0	-14.8 ± 0.6	NY
HD 73256	HIP 42214	-36.9 ± 1.4	-19.4 ± 1.1	-15.4 ± 1.1	NY
HD 103742	HIP 58240	-31.2 ± 10.9	-22.7 ± 6.3	-8.1 ± 6.1	NY
HD 106489	HIP 59726	-40.1 ± 1.0	-22.9 ± 1.1	-19.2 ± 1.6	NY
HD 120368	HIP 67458	-15.4 ± 0.8	0.4 ± 1.2	-18.1 ± 1.5	NN
HD 131156A	HIP 72659	4.7 ± 0.6	1.9 ± 0.4	-2.0 ± 0.9	NN
HD 115383	HIP 64792	-38.4 ± 0.6	2.0 ± 0.7	-20.3 ± 1.0	NN
HD 110420	HIP 61998	-3.2 ± 0.7	2.4 ± 1.1	-13.9 ± 2.2	NN
HD 33262	HIP 23693	-6.1 ± 0.3	2.6 ± 0.8	-1.4 ± 0.6	NN
HD 113553	HIP 63862	-41.3 ± 1.4	4.6 ± 1.2	-5.1 ± 0.7	NN
HD 131156B	HIP 72659	14.5 ± 0.6	6.1 ± 0.4	17.5 ± 0.9	NN
HD 104471	HIP 58669	-52.5 ± 2.0	-0.1 ± 1.3	-18.6 ± 0.8	NN
HD 59967	HIP 36515	-11.1 ± 0.6	-3.9 ± 0.9	-6.6 ± 0.3	NN
HD 20630	HIP 15457	-21.7 ± 0.7	-4.3 ± 0.2	-4.7 ± 0.7	NN
HD 74576	HIP 42808	-25.7 ± 1.1	-7.1 ± 1.0	-0.9 ± 0.9	NN
HD 106506	HIP 59764	-20.2 ± 1.9	-7.6 ± 1.3	-9.4 ± 1.5	NN
HD 104551	HIP 58699	-30.9 ± 2.5	-8.8 ± 1.5	-2.4 ± 1.2	NN
HD 43162	HIP 29568	-19.7 ± 1.0	-9.1 ± 0.9	-6.6 ± 0.5	NN
HD 110143	HIP 61840	0.1 ± 0.7	-11.1 ± 1.0	-26.9 ± 3.0	NN
HD 67199	HIP 39342	9.0 ± 0.9	-34.9 ± 1.0	-28.8 ± 0.7	NN
HD 103743	HIP 58241	-99.8 ± 132.0	-59.7 ± 70.0	-26.1 ± 39.4	NN

Table 3: UVW space motions are presented for each Local Association candidate in our target sample. These kinematic vectors were calculated using the HIPPARCOS astrometry and the radial velocities we determined from spectroscopy, using the matrices presented in Figure 2.3. Local Association membership assignments are detailed in column 6, as judged from a star's space motion data in UV/VW space (see Figure 5.3). Clearly, 'Y' is a member, 'N' is a rejected candidate, and uncertain cases are listed as '?' symbols.