

References

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Table 1. Summary of known properties of the targets from literatures: a. ?) (original list for Oph), b. ?) (original list for Upper Sco objects), c. ?), d. ?), and e. ?).

Object	Sp.	I	mass [M_{\odot}]	RV [km s^{-1}]	$v \sin i$ [km s^{-1}]	Known multiple?
GY 5	M7 ^c	~ 16	0.07 ^d	$-6.3 \pm 1.9^{\text{d}}$	$16.8 \pm 2.7^{\text{d}}$	no
GY 141	M8.5 ^a	~ 16	0.02 ^d	...	...	no
GY 310	M8.5 ^c	~ 16	0.08 ^{a,d}	...	...	no
USco 40	M5 ^b	14.3	0.1 ^b	...	...	no
USco 53	M5 ^b	14.5	0.1 ^b	...	...	no
USco 55	M5.5 ^b	14.6	$0.10 + 0.07^{\text{e}}$	...	...	yes ^e
USco 66	M6 ^b	14.9	$0.07 + 0.07^{\text{e}}$	$-4.4 \pm 0.6^{\text{d}}$	...	yes ^e
USco 67	M5.5 ^b	14.9	0.10 ^e	...	...	no
USco 75	M6 ^b	15.1	0.07 ^e	$-5.6 \pm 1.1^{\text{d}}$	...	no
USco 100	M7 ^b	15.6	0.05 ^e	$-8.9 \pm 0.6^{\text{d}}$	...	no
USco 101	M5 ^b	15.6	0.05 ^b	...	...	no
USco 104	M5 ^b	15.7	0.05 ^b	...	...	no
USco 109	M6 ^b	16.1	$0.07 + 0.04^{\text{e}}$	$-3.8 \pm 0.7^{\text{d}}$	...	yes ^e
USco 112	M5.5 ^b	16.1	0.1 ^e	...	...	no
USco 121	M6 ^b	16.5	0.02 ^b	$-38.9 \pm 1.0^{\text{d}}$	...	no
USco 128	M7 ^b	17.1	0.05 ^e	$-3.0 \pm 1.6^{\text{d}}$	...	no
USco 130	M7.5 ^e	17.5	0.04 ^e	...	...	no
USco 132	M7 ^b	17.6	0.05 ^e	$-8.2 \pm 1.1^{\text{d}}$	...	no

Table 2. Summary of the observation, the heliocentric radial velocities (RV) from two-epoch and the average rotational velocities ($v \sin i$). The uncertainties of relative radial velocities (σ_{RRV}) with respect to the template star LHS 049 and the average radial velocities ($\overline{\text{RV}}$) are also given. The last column indicates whether a target is a candidate for multiplicity i.e. the measured radial velocity changes from two different epoch is larger than $1\sigma_{\text{RRV}}$ of each others (c.f. Fig. 1). Rank indicates the likeliness of the candidacy base of the RV separation and the peak strength of the cross-correlation curves.

Object	Date	MDJ-2453100	RV [km s ⁻¹]	σ_{RRV} [km s ⁻¹]	$\overline{\text{RV}}$ [km s ⁻¹]	$v \sin i$ [km s ⁻¹]	candidate?	rank	known
GY 5	2004-Apr-25	20.22051	-6.14 ± 0.84	0.68					
	2004-May-08	33.27776	-5.96 ± 0.60	0.34	-6.05 ± 1.03	16.5 ± 0.6	no		
GY 141	2004-May-11	36.16016	-4.39 ± 0.60	0.34					
	2004-May-18	43.15707	-2.95 ± 0.51	0.11	-3.67 ± 0.79	4.4 ± 1.4	yes	2	
GY 310	2004-Apr-25	20.32700	-4.83 ± 0.74	0.54					
	2004-May-10	35.31139	-8.43 ± 0.51	0.11	-6.63 ± 0.90	11.1 ± 6.0	yes	2	
USco 40	2004-Apr-06	01.25900	-7.15 ± 0.74	0.54					
	2004-May-08	33.25324	-6.80 ± 0.51	0.11	-6.98 ± 0.90	34.2 ± 0.5	no		
USco 53	2004-Apr-05	00.39651	-7.27 ± 0.93	1.21					
	2004-May-03	28.23079	-5.43 ± 0.74	0.55	-6.35 ± 1.19	40.0 ± 0.6	no		
USco 55	2004-Apr-06	01.33509	-5.39 ± 0.50	0.02					
	2004-May-03	28.30546	-6.38 ± 0.53	0.27	-6.38 ± 0.73	22.9 ± 0.8	yes	1	X
USco 66	2004-Apr-06	01.29007	-5.32 ± 0.57	0.29					
	2004-May-03	28.28683	-6.41 ± 0.65	0.42	-5.87 ± 0.86	25.9 ± 1.2	no	2	X
USco 67	2004-Apr-06	01.21481	-6.01 ± 0.74	0.55					
	2004-May-03	28.21759	-6.83 ± 0.59	0.31	-6.42 ± 0.90	18.4 ± 0.4	no		
USco 75	2004-Apr-05	00.37453	-6.75 ± 0.67	0.44					
	2004-May-08	33.09532	-9.88 ± 1.94	1.88	-8.32 ± 2.05	55.6 ± 3.0	yes	3	
USco 100	2004-Apr-06	01.30836	-6.76 ± 2.74	2.69					
	2004-May-03	28.26425	-10.23 ± 1.80	1.73	-8.47 ± 3.28	43.7 ± 3.2	no		
USco 101	2004-Apr-05	00.30191	-4.22 ± 0.87	0.71					
	2004-May-03	28.14804	-6.07 ± 0.69	0.48	-5.15 ± 1.11	19.1 ± 0.3	yes	2	
USco 104	2004-Apr-05	00.27545	-5.83 ± 0.50	0.02					
	2004-May-03	28.12391	-7.48 ± 0.50	0.06	-6.66 ± 0.06	16.7 ± 0.4	yes	1	
USco 109	2004-Apr-06	01.23587	-4.15 ± 0.52	0.16					
	2004-May-08	33.11929	-4.41 ± 0.50	0.03	-5.12 ± 0.72	8.6 ± 1.2	possibly	3	X
USco 112	2004-Apr-05	00.34486	-2.70 ± 0.69	0.47					
	2004-May-08	33.07139	-3.46 ± 0.51	0.11	-3.08 ± 0.86	5.8 ± 1.2	possibly	3	
USco 121	2004-Apr-25	20.19466	-39.47 ± 0.51	0.11					
	2004-May-03	28.18537	-42.43 ± 0.50	0.02	-40.95 ± 0.71	17.6 ± 1.3	yes	1	
USco 128	2004-May-14	39.28595	-7.41 ± 0.85	0.69					
	2004-May-18	43.09885	-6.94 ± 1.16	1.05	-7.18 ± 1.44	3.6 ± 1.1	no		
USco 130	2004-May-10	35.26060	-4.83 ± 0.54	0.21					
	2004-May-14	39.34201	-4.95 ± 0.74	0.55	-4.89 ± 0.92	15.2 ± 1.1	no		
USco 132	2004-May-12	37.28394	-7.18 ± 0.58	0.30					
	2004-Jun-18	43.12719	-7.37 ± 1.02	0.89	-7.28 ± 1.17	9.1 ± 0.7	no		

USCO-121==> Only 7 days apart!
 1USco-128 and USco-130 ==>only 4 days apart!

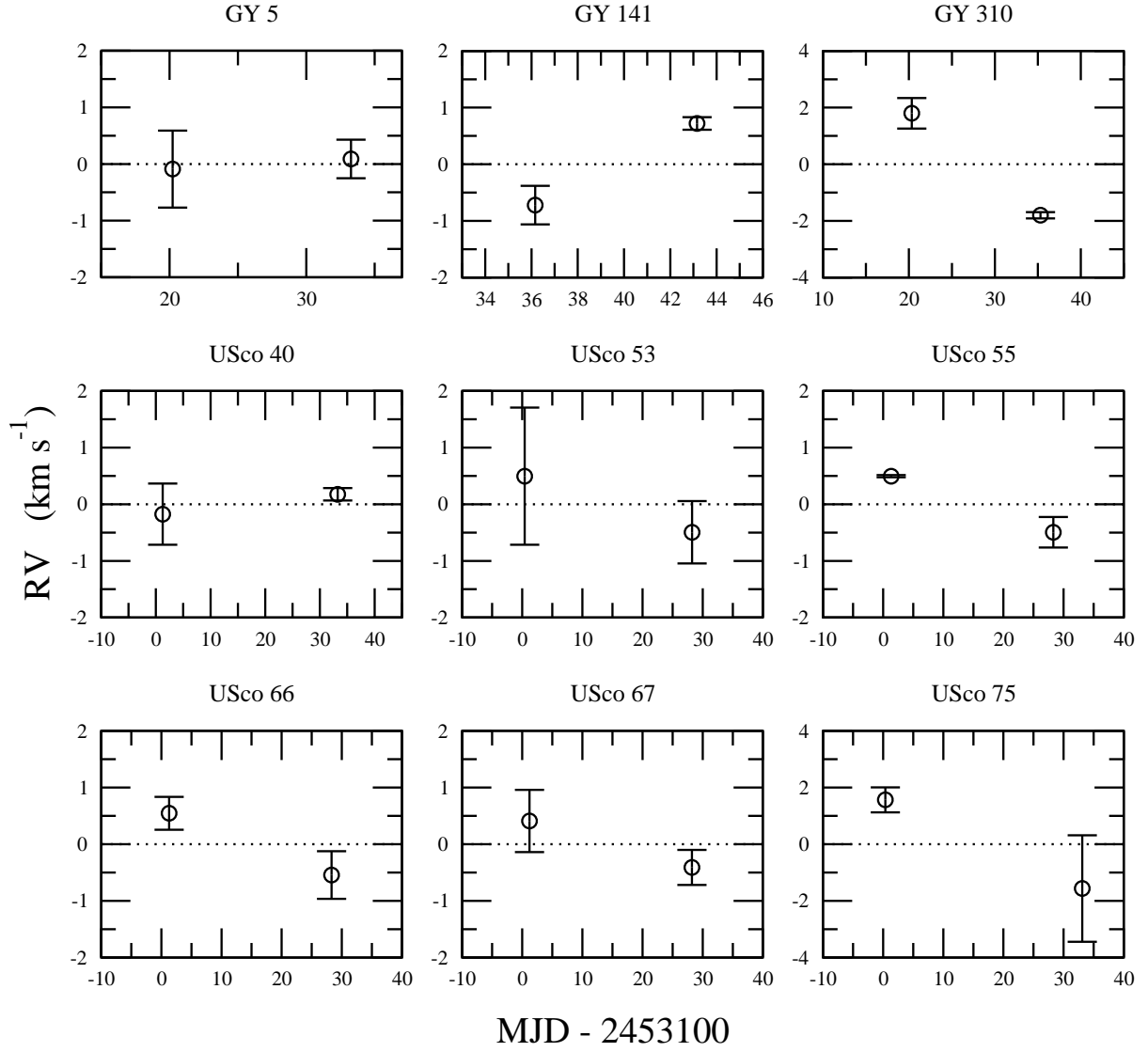


Figure 1. Relative radial velocities (RVs) of objects measured in two different epochs. The vertical axes indicate are the amount of diviation from the the average radial velocity (\overline{RV}) in Table), and the horizontal axes indicate the time of the observation in modified Julian date (MJD). The objects are considered to have a non-constant radial velocity when the error bars of two data points do not overlap each other.

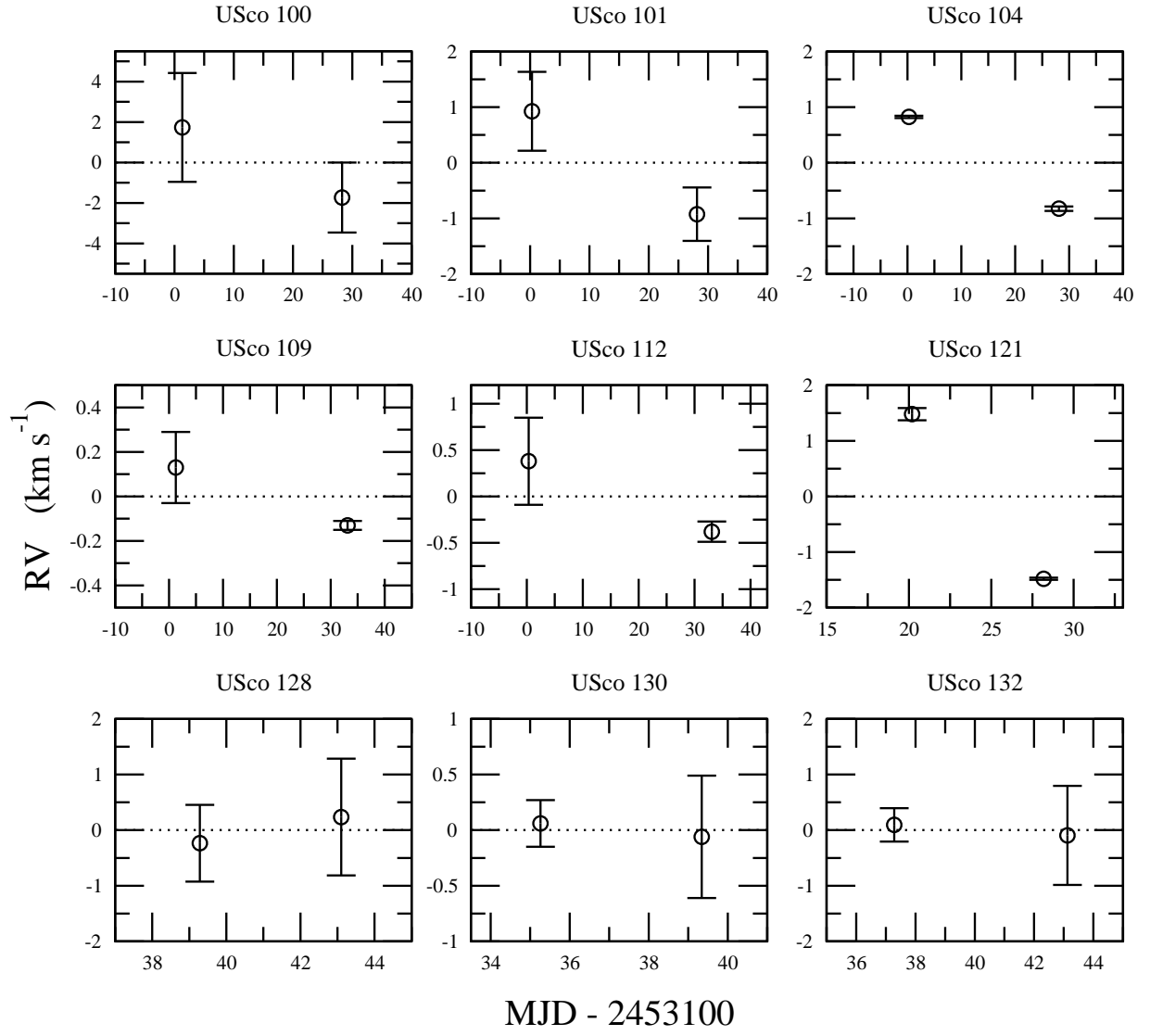


Figure 1. continued