

KSE (#0027): Total of 33 orbits. $\lambda_o = 25.9^\circ$, $\lambda_g - \lambda_o = 216.7^\circ$, $\beta_g = 38.3^\circ$, $\Delta r = 3^\circ$, $\Delta \lambda_o = 5^\circ$. This is another ‘kappa Serpentids’ activity, suggested from Harvard Super Schmidt observations.

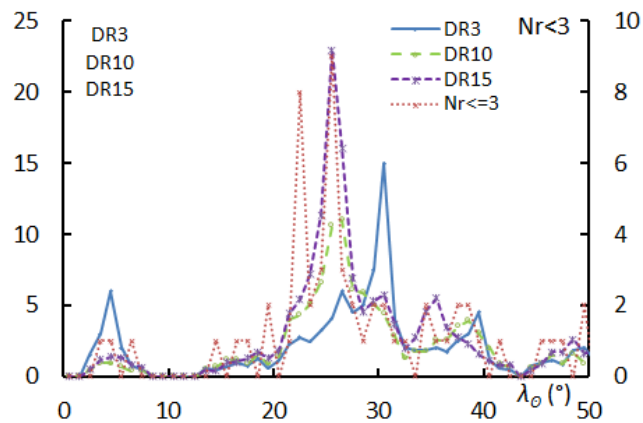
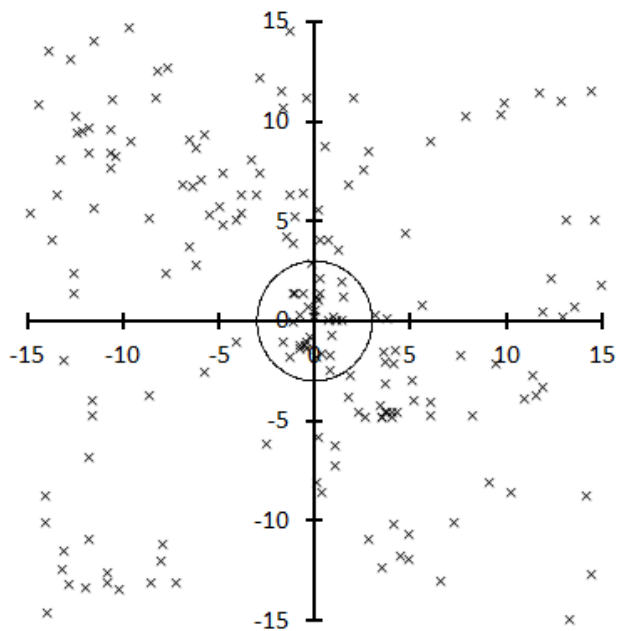


Table 1 – Number per year.

Year	N	Year	N
2007	1	2013	2
2008	1	2014	4
2009	0	2015	2
2010	0	2016	7
2011	2	2017	7
2012	2	2018	5

Table 2 – Activity profiles.

	λ_o	Max
Nr<=3	25.5	9
DR3	29.5	7.5
DR10	26.5	11.0
DR15	25.5	23.0

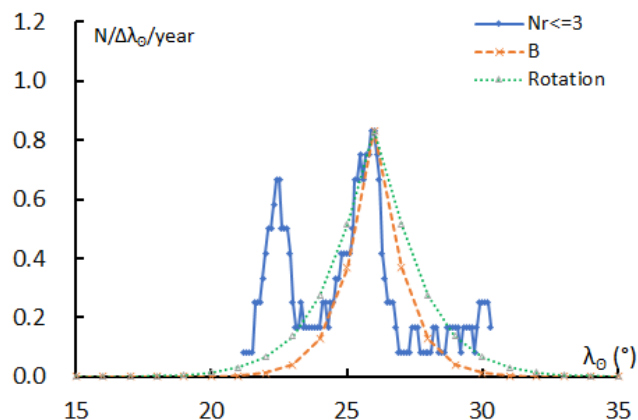


Table 3 – Evolution of the orbital parameters during the activity period.

λ_o	$\lambda_g - \lambda_o$	β_g	α_g	δ_g	v_g	e	q	i	ω	Ω	λ_{II}	β_{II}	a
15	218.3	36.4	239.9	16.7	48.1	0.984	0.482	78.7	272.6	15.0	297.8	-78.4	29.51
16	218.1	36.6	240.6	16.8	47.9	0.981	0.486	78.1	272.2	16.0	296.5	-77.9	26.12
17	217.9	36.9	241.3	16.9	47.7	0.979	0.490	77.6	271.8	17.0	295.4	-77.4	23.46
18	217.7	37.1	242.0	17.0	47.4	0.977	0.494	77.0	271.4	18.0	294.4	-76.9	21.30
19	217.5	37.4	242.7	17.1	47.2	0.974	0.498	76.5	271.1	19.0	293.6	-76.4	19.53
20	217.3	37.6	243.4	17.2	47.0	0.972	0.502	75.9	270.7	20.0	292.8	-75.9	18.04
21	217.1	37.9	244.1	17.3	46.7	0.970	0.506	75.4	270.3	21.0	292.2	-75.4	16.78
22	216.9	38.2	244.8	17.4	46.5	0.967	0.510	74.9	269.9	22.0	291.7	-74.9	15.69
23	216.7	38.4	245.5	17.5	46.3	0.965	0.514	74.4	269.5	23.0	291.3	-74.4	14.74
24	216.5	38.7	246.2	17.6	46.0	0.963	0.518	73.8	269.1	24.0	290.9	-73.8	13.90
25	216.3	38.9	246.9	17.8	45.8	0.960	0.523	73.3	268.7	25.0	290.6	-73.3	13.17
26	216.0	39.2	247.5	17.9	45.6	0.958	0.527	72.8	268.4	26.0	290.4	-72.7	12.51
27	215.8	39.4	248.2	18.0	45.3	0.955	0.531	72.3	268.0	27.0	290.3	-72.2	11.92
28	215.6	39.7	248.9	18.2	45.1	0.953	0.535	71.8	267.6	28.0	290.2	-71.6	11.38
29	215.4	39.9	249.6	18.3	44.8	0.951	0.539	71.3	267.2	29.0	290.2	-71.1	10.90
30	215.2	40.2	250.2	18.4	44.6	0.948	0.543	70.8	266.8	30.0	290.2	-70.6	10.46
31	214.9	40.4	250.9	18.6	44.4	0.946	0.548	70.3	266.4	31.0	290.3	-70.0	10.05
32	214.7	40.7	251.5	18.7	44.1	0.943	0.552	69.8	265.9	32.0	290.4	-69.4	9.68
33	214.5	40.9	252.2	18.9	43.9	0.940	0.556	69.4	265.5	33.0	290.5	-68.9	9.34
34	214.3	41.2	252.8	19.0	43.7	0.938	0.560	68.9	265.1	34.0	290.7	-68.3	9.02
35	214.0	41.5	253.5	19.2	43.4	0.935	0.565	68.4	264.7	35.0	290.9	-67.8	8.73