Part I. Ablation Study on DAVIS 2016

Table 1 Statistics details of our method in different settings and region similarity J (%).

Video sequences	DAMs RMs HOP	DAMs RMs	DAMs	DAMs HOP	DAMs RMs HOP in [1]	GAMs RMs HOP	DAMs RMs HOP (RGB)
bear	0.862	0.740	0.620	0.662	0.882	0.912	0.880
blackswan	0.939	0.939	0.908	0.909	0.940	0.909	0.934
bmx-bumps	0.511	0.532	0.431	0.453	0.593	0.564	0.586
bmx-trees	0.295	0.301	0.287	0.268	0.320	0.392	0.270
boat	0.620	0.484	0.476	0.475	0.465	0.232	0.617
breakdance	0.671	0.532	0.597	0.475	0.675	0.706	0.673
breakdance-flare	0.826	0.719	0.591	0.604	0.802	0.906	0.973
bus	0.867	0.839	0.781	0.784	0.871	0.875	0.861
camel	0.825	0.704	0.583	0.610	0.846	0.819	0.820
car-roundabout	0.877	0.681	0.682	0.682	0.886	0.587	0.589
car-shadow	0.741	0.744	0.663	0.683	0.759	0.767	0.765
car-turn	0.863	0.802	0.366	0.366	0.783	0.487	0.867
cows	0.724	0.723	0.208	0.208	0.648	0.248	0.680
dance-jump	0.807	0.756	0.694	0.706	0.747	0.787	0.735
dance-twirl	0.651	0.503	0.433	0.660	0.651	0.787	0.861
dog	0.838	0.839	0.659	0.657	0.632	0.783	0.632
dog-agility	0.827	0.820	0.771	0.771	0.823	0.898	0.830
drift-chicane	0.514	0.480	0.450	0.476	0.515	0.449	0.524
drift-straight	0.605	0.569	0.505	0.514	0.611	0.595	0.516
drift-turn	0.689	0.713	0.673	0.671	0.664	0.702	0.639
elephant	0.766	0.740	0.663	0.690	0.718	0.740	0.739
flamingo	0.834	0.785	0.658	0.658	0.746	0.792	0.860
goat	0.496	0.295	0.257	0.293	0.503	0.482	0.417
hike	0.872	0.855	0.755	0.762	0.873	1.138	0.855
hockey	0.859	0.705	0.682	0.696	0.855	0.883	0.866
horsejump-high	0.865	0.705	0.656	0.656	0.872	0.853	0.927
horsejump-low	0.486	0.371	0.358	0.372	0.499	0.524	0.528
kite-surf	0.642	0.649	0.410	0.412	0.590	0.589	0.670
kite-walk	0.855	0.782	0.756	0.764	0.879	0.834	0.856
libby	0.620	0.648	0.519	0.525	0.622	0.661	0.607
lucia	0.900	0.806	0.784	0.786	0.894	0.778	0.897
mallard-fly	0.593	0.589	0.435	0.443	0.562	0.525	0.491
mallard-water	0.793	0.723	0.768	0.587	0.795	0.749	0.795
motocross-bumps	0.773	0.758	0.682	0.721	0.809	0.745	0.718
motocross-jump	0.790	0.733	0.669	0.676	0.791	0.669	0.809

Video sequences	DAMs RMs HOP	DAMs RMs	DAMs	DAMs HOP	DAMs RMs HOP in [1]	GAMs RMs HOP	DAMs RMs HOP (RGB)
motorbike	0.679	0.590	0.451	0.450	0.648	0.637	0.664
paragliding	0.931	0.851	0.737	0.742	0.934	0.400	0.848
paragliding-launch	0.693	0.662	0.567	0.573	0.692	0.695	0.717
parkour	0.859	0.743	0.686	0.691	0.857	0.900	0.806
rhino	0.837	0.716	0.595	0.679	0.858	0.892	0.808
rollerblade	0.748	0.655	0.432	0.453	0.753	0.631	0.734
scooter-black	0.722	0.704	0.580	0.606	0.725	0.613	0.702
scooter-gray	0.354	0.355	0.154	0.194	0.387	0.257	0.340
soapbox	0.828	0.782	0.709	0.757	0.855	0.829	0.832
soccerball	0.867	0.767	0.704	0.754	0.848	0.825	0.768
stroller	0.826	0.800	0.742	0.759	0.685	0.769	0.863
surf	0.811	0.780	0.703	0.723	0.815	0.783	0.817
swing	0.806	0.737	0.530	0.580	0.768	0.707	0.803
tennis	0.786	0.539	0.339	0.343	0.794	0.843	0.634
train	0.819	0.789	0.653	0.700	0.823	0.879	0.766
J Mean	**0.745**	**0.681**	**0.580**	**0.594**	**0.731**	**0.700**	**0.728**

Table 2 Statistics details of our method in different settings and contour accuracy F (%).

Video sequences	DAMs RMs HOP	DAMs RMs	DAMs	DAMs HOP	DAMs RMs HOP in [1]	GAMs RM HOP	DAMs RMs HOP (RGB)
bear	0.770	0.710	0.664	0.667	0.874	0.862	0.774
blackswan	0.964	0.933	0.863	0.863	0.969	0.966	0.969
bmx-bumps	0.769	0.709	0.709	0.709	0.878	0.822	0.778
bmx-trees	0.676	0.604	0.558	0.557	0.639	0.502	0.639
boat	0.623	0.436	0.425	0.425	0.555	0.612	0.555
breakdance	0.653	0.445	0.492	0.491	0.642	0.541	0.642
breakdance-flare	0.890	0.600	0.579	0.580	0.934	0.879	0.884
bus	0.747	0.704	0.709	0.707	0.744	0.736	0.744
camel	0.811	0.692	0.682	0.647	0.860	0.703	0.860
car-roundabout	0.777	0.595	0.596	0.597	0.787	0.536	0.787
car-shadow	0.631	0.629	0.572	0.565	0.536	0.572	0.536
car-turn	0.764	0.726	0.417	0.416	0.687	0.786	0.687
cows	0.511	0.507	0.291	0.294	0.353	0.406	0.353
dance-jump	0.617	0.587	0.528	0.527	0.535	0.543	0.535
dance-twirl	0.651	0.522	0.540	0.528	0.651	0.844	0.651
dog	0.747	0.672	0.501	0.504	0.493	0.493	0.493
dog-agility	0.696	0.741	0.684	0.686	0.695	0.733	0.695

Video sequences	DAMs RMs HOP	DAMs RMs	DAMs	DAMs HOP	DAMs RMs HOP in [1]	GAMs RMs HOP	DAMs RMs HOP (RGB)
drift-chicane	0.587	0.455	0.479	0.461	0.586	0.564	0.586
drift-straight	0.423	0.342	0.337	0.303	0.425	0.423	0.425
drift-turn	0.484	0.491	0.366	0.364	0.381	0.411	0.381
elephant	0.541	0.496	0.468	0.466	0.541	0.530	0.541
flamingo	0.904	0.874	0.802	0.802	0.821	1.011	0.821
goat	0.514	0.261	0.447	0.447	0.525	0.557	0.525
hike	0.893	0.826	0.749	0.755	0.895	0.885	0.895
hockey	0.915	0.706	0.720	0.701	0.898	0.934	0.898
horsejump-high	0.910	0.710	0.666	0.662	0.908	1.040	0.908
horsejump-low	0.536	0.392	0.493	0.482	0.549	0.528	0.549
kite-surf	0.547	0.509	0.554	0.564	0.582	0.560	0.582
kite-walk	0.688	0.679	0.573	0.579	0.804	0.676	0.804
libby	0.779	0.707	0.596	0.589	0.775	0.729	0.775
lucia	0.906	0.862	0.704	0.702	0.864	0.897	0.864
mallard-fly	0.637	0.657	0.474	0.535	0.635	0.601	0.635
mallard-water	0.749	0.704	0.383	0.604	0.787	0.755	0.787
motocross-bumps	0.781	0.562	0.543	0.506	0.804	0.545	0.804
motocross-jump	0.663	0.587	0.531	0.524	0.664	0.668	0.664
motorbike	0.833	0.624	0.484	0.481	0.808	0.877	0.808
paragliding	0.868	0.753	0.587	0.576	0.874	0.652	0.874
paragliding-launch	0.458	0.460	0.448	0.453	0.458	0.483	0.458
parkour	0.783	0.588	0.584	0.571	0.778	0.757	0.778
rhino	0.725	0.706	0.715	0.705	0.691	0.778	0.691
rollerblade	0.834	0.720	0.667	0.655	0.826	0.816	0.826
scooter-black	0.645	0.643	0.566	0.558	0.654	0.647	0.654
scooter-gray	0.462	0.460	0.249	0.249	0.479	0.482	0.479
soapbox	0.804	0.758	0.702	0.695	0.768	0.827	0.768
soccerball	0.920	0.803	0.769	0.782	0.920	0.901	0.900
stroller	0.877	0.788	0.715	0.700	0.775	0.886	0.775
surf	0.737	0.698	0.636	0.603	0.733	0.694	0.733
swing	0.744	0.691	0.509	0.514	0.733	0.732	0.733
tennis	0.820	0.599	0.498	0.532	0.824	0.801	0.824
train	0.718	0.698	0.636	0.651	0.737	0.712	0.737
***F* Mean**	**0.720**	**0.632**	**0.569**	**0.571**	**0.707**	**0.698**	**0.701**

Reference:

[1] S.D. Jain and K. Grauman, "Supervoxel-consistent foreground propagation in video," in Proceedings of the 13th European Conference on Computer Vision, Zurich, Switzerland, 2014, pp.656-671.