

Supplementary Material: Shrinking shrimp-shaped domains and multistability in the dissipative asymmetric kicked rotor map

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In this Supplementary Material, we provide the data used for the polynomial fitting discussed in the manuscript. Table I lists the positions (a, k) of the centers of each shrimp-shaped structure shown in Fig. 3 of the main text for the specified values of γ . These positions are marked as red dots in Fig. 3. Using these values, we performed a 17th-order polynomial fitting with a as a function of k [$a = a(k)$] using the *Numpy* function *polyfit*. The resulting coefficients are presented in Table II. The raw data from Tables I and II are also available in the accompanying .csv files.

Table I. The values of a and k for each values of γ considered used for obtaining the coefficients shown in Table II of the polynomial fitting for a function $a = a(k)$.

m	$\gamma = 0.80$		$\gamma = 0.85$		$\gamma = 0.90$		$\gamma = 0.95$	
	a	k	a	k	a	k	a	k
1	0.462909	7.897635	0.447426	8.437614	0.433051	8.846899	0.419775	9.229717
2	0.379125	15.000630	0.369382	15.930280	0.361386	16.797723	0.353504	17.557331
3	0.346059	22.059800	0.339711	23.348113	0.333550	24.644957	0.327783	25.848532
4	0.328651	29.060695	0.323298	30.754721	0.318256	32.421418	0.313475	34.076890
5	0.317266	35.992365	0.312770	38.114964	0.308434	40.165220	0.304580	42.232880
6	0.309605	42.895766	0.305269	45.425311	0.301631	47.913438	0.298467	50.370060
7	0.303406	49.768883	0.299753	52.731508	0.296556	55.609194	0.293405	58.515287
8	0.298737	56.639532	0.295341	59.988580	0.292520	63.285007	0.289549	66.634131
9	0.294994	63.492931	0.291883	67.238869	0.289142	70.981400	0.286416	74.720950
10	0.291849	70.310629	0.289020	74.497381	0.286323	78.653210	0.283980	82.807737
11	0.289166	77.133977	0.286621	81.749253	0.284082	86.315238	0.281865	90.889749
12	0.286893	83.962577	0.284472	88.996435	0.282169	93.991249	0.279954	98.972946
13	0.284920	90.771605	0.282646	96.200178	0.280537	101.628672	0.278418	107.027232
14	0.283214	97.590912	0.281005	103.438146	0.278924	109.271141	0.277009	115.105507
15	0.281756	104.397078	0.279559	110.678706	0.277587	116.910030	0.275750	123.161110
16	0.280350	111.200799	0.278290	117.884705	0.276430	124.548372	0.274736	131.217770
17	0.279146	117.964081	0.277113	125.100446	0.275378	132.188863	0.273724	139.260105
18	0.277979	124.773470	0.276111	132.286620	0.274403	139.792080	0.272797	147.301314
19	0.277001	131.568518	0.275187	139.491538	0.273589	147.430641	0.271921	155.331542
20	0.276029	138.349085	0.274306	146.709202	0.272719	155.039789	0.271219	163.383414
21	0.275187	145.133267	0.273540	153.909442	0.271965	162.642537	0.270515	171.429102
22	0.274413	151.921848	0.272808	161.096926	0.271274	170.265445	0.269931	179.455345
23	0.273715	158.684130	0.272132	168.293587	0.270691	177.892193	0.269324	187.487918
24	0.273013	165.461222	0.271563	175.492348	0.270091	185.506544	0.268786	195.515449
25	0.272390	172.230571	0.270884	182.663504	0.269525	193.094552	0.268226	203.537604
26	0.271843	179.014626	0.270338	189.862190	0.269042	200.712657	—	—
27	0.271252	185.765034	0.269828	197.041529	—	—	—	—
28	0.270732	192.542442	—	—	—	—	—	—
29	0.270266	199.302977	—	—	—	—	—	—
30	0.269785	206.059154	—	—	—	—	—	—

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Table II. The coefficients of the 17th-order polynomial fitting of the function $a = a(k)$ considering the values of a and k shown in Table I.

Order	$\gamma = 0.80$	$\gamma = 0.85$	$\gamma = 0.90$	$\gamma = 0.95$
0	7.837632×10^{-1}	8.273202×10^{-1}	7.896822×10^{-1}	7.115687×10^{-1}
1	-7.403660×10^{-2}	-9.176310×10^{-2}	-8.515331×10^{-2}	-5.958670×10^{-2}
2	6.339351×10^{-3}	8.973267×10^{-3}	8.533889×10^{-3}	4.434611×10^{-3}
3	-3.561957×10^{-4}	-5.748365×10^{-4}	-5.729379×10^{-4}	-1.859129×10^{-4}
4	1.395824×10^{-5}	2.571224×10^{-5}	2.727202×10^{-5}	3.577980×10^{-6}
5	-3.964141×10^{-7}	-8.381759×10^{-7}	-9.547941×10^{-7}	4.296440×10^{-8}
6	8.356649×10^{-9}	2.049863×10^{-8}	2.516500×10^{-8}	-4.898399×10^{-9}
7	$-1.326352 \times 10^{-10}$	$-3.835557 \times 10^{-10}$	$-5.066498 \times 10^{-10}$	1.594709×10^{-10}
8	1.595703×10^{-12}	5.560447×10^{-12}	7.859365×10^{-12}	$-3.198754 \times 10^{-12}$
9	$-1.454746 \times 10^{-14}$	$-6.287500 \times 10^{-14}$	$-9.431446 \times 10^{-14}$	4.484204×10^{-14}
10	9.965772×10^{-17}	5.552154×10^{-16}	8.753086×10^{-16}	$-4.593745 \times 10^{-16}$
11	$-5.027935 \times 10^{-19}$	$-3.811566 \times 10^{-18}$	$-6.251033 \times 10^{-18}$	3.497065×10^{-18}
12	1.792358×10^{-21}	2.011505×10^{-20}	3.397369×10^{-20}	$-1.980497 \times 10^{-20}$
13	$-4.107533 \times 10^{-24}$	$-7.996822 \times 10^{-23}$	$-1.377872 \times 10^{-22}$	8.242408×10^{-23}
14	4.344166×10^{-27}	2.314738×10^{-25}	4.034072×10^{-25}	$-2.450066 \times 10^{-25}$
15	4.052749×10^{-30}	$-4.600343 \times 10^{-28}$	$-8.048158 \times 10^{-28}$	4.925406×10^{-28}
16	$-1.775190 \times 10^{-32}$	5.608680×10^{-31}	9.785584×10^{-31}	$-6.001771 \times 10^{-31}$
17	1.585021×10^{-35}	$-3.160479 \times 10^{-34}$	$-5.468611 \times 10^{-34}$	3.347988×10^{-34}