

John L. Sabo and David M. Post. 2008. Quantifying periodic, stochastic, and catastrophic environmental variation. *Ecological Monographs* 78:19–40.

Source	Stream name	State	USGS station	Yr	WA (km <sup>3</sup> )	Alt. (m)	DLa	DLo
Poff & Ward	Turkey Creek	AL	2427700	38	252.52	17.92	32.0209819	-87.5583335
Poff & Ward	Piney Fork	AR	7073500	46	256.93	128.2	36.0806257	-91.610974
Poff & Ward	Big Piney Creek	AR	7257000	43	709.66	148.64	35.5495254	-93.1585084
Poff & Ward	Cossatot River	AR	7340300	37	232.06	235.27	34.3795542	-94.235763
Poff & Ward	Aravaipa Creek	AZ	9473000	73	1390.82	714.76	32.8436777	-110.619822
Poff & Ward	Sycamore Creek	AZ	9510200	44	424.76	536.24	33.6942105	-111.541802
Poff & Ward	Sagehen Creek	CA	10343500	51	27.19	1926.34	39.4315725	-120.2379793
Poff & Ward	Sespe Creek	CA	11113000	93	650.09	172.21	34.4508281	-118.9259322
Poff & Ward	Salsipuedes Creek	CA	11132500	63	121.99	67.06	34.5885957	-120.4084938
Poff & Ward	Arroyo Seco	CA	11152000	103	631.96	103.39	36.2805208	-121.3227063
Poff & Ward	lark Fork Stanislaus Riv	CA	11292500	44	174.82	1678.63	38.3638011	-119.8712915
Poff & Ward	Big Chico Creek	CA	11384000	56	187.52	91.44	39.7762726	-121.753866
Poff & Ward	Trinity River	CA	11523200	47	385.91	773.26	41.1112571	-122.7055788
Poff & Ward	St. Vrain Creek	CO	6724000	103	559.44	1613	40.2180409	-105.2599887
Poff & Ward	Colorado River	CO	9010500	51	138.31	2667	40.3258178	-105.8566792
Poff & Ward	East River	CO	9112500	94	748.51	2440.32	38.6644372	-106.8480951
Poff & Ward	Middle Oconee River	GA	2217500	103	1030.82	169.37	33.9466667	-83.4227778
Poff & Ward	Satilla River	GA	2226500	67	3107.99	20.25	31.2382737	-82.3245711
Poff & Ward	Winnnebago River	IA	5459500	72	1362.33	326.01	43.1649618	-93.1927034
Poff & Ward	South Fork Saline River	IL	3382100	39	380.73	114.49	37.6378273	-88.6778342
Poff & Ward	Lusk Creek	IL	3384450	37	111.11	109.86	37.4722725	-88.5472693
Poff & Ward	Vermilion River	IL	5554500	62	1499.6	188.81	40.8778112	-88.636173
Poff & Ward	Youngs Creek	IN	3362000	62	277.13	204.28	39.4189396	-86.0049889
Poff & Ward	Smoky Hill River	KS	6860000	65	9207.41	799.37	38.7948049	-100.8584713
Poff & Ward	Rattlesnake Creek	KS	7142300	45	2030.55	598.46	37.8715937	-98.8761373
Poff & Ward	Stoner Creek	KY	3252000	38	619.01	234.83	38.229243	-84.2560426
Poff & Ward	Russell Creek	KY	3307000	65	486.92	186.22	37.1192281	-85.3938524
Poff & Ward	Bayou Toro	LA	8025500	47	383.32	42.06	31.3071274	-93.5157295
Poff & Ward	Machias River	ME	1016500	32	852.11	163.07	46.6283111	-68.4347917
Poff & Ward	Augusta Creek	MI	4105700	40	100.75	248.41	42.3533734	-85.3538894
Poff & Ward	Baptism River	MN	4014500	65	362.6	187.04	47.3374172	-91.2007189
Poff & Ward	Cedar Creek	MO	6919500	81	1087.8	225.39	37.8342028	-93.8754918
Poff & Ward	Skuna River	MS	7283000	57	657.86	69.63	33.9736111	-89.3477778
Poff & Ward	Middle Fork Rock Creek	MT	12332000	66	318.57	1659.36	46.1844928	-113.5024736
Poff & Ward	Prospect Creek	MT	12390700	48	471.38	726.16	47.5860461	-115.355153
Poff & Ward	Potecasi Creek	NC	2053200	46	582.75	1.08	36.3708333	-77.0255556
Poff & Ward	Hunting Creek	NC	2118500	53	401.45	223.96	36.0005556	-80.7455556
Poff & Ward	Little Tennessee	NC	3500000	60	362.6	612.16	35.15	-83.3797222
Poff & Ward	Mauvais Coulee	ND	5056100	48	1002.33	440.44	48.4480588	-99.1026354
Poff & Ward	Dismal River	NE	6775900	38	2501.93	853.48	41.7786028	-100.5253917
Poff & Ward	Logan Creek	NE	6799450	28	1893.28	396.53	42.1139444	-96.7016611
Poff & Ward	Conchas River	NM	7222500	60	1354.56	1350.26	35.4028257	-104.4435938
Poff & Ward	Pecos River	NM	8378500	85	489.51	2286.9	35.7083661	-105.6825171
Poff & Ward	Gallinas Creek	NM	8380500	78	217.56	2095.5	35.651986	-105.3188997
Poff & Ward	Zuni River	NM	9386950	35	2196.31	1965.96	35.1008658	-108.7506376
Poff & Ward	Gila River	NM	9430500	77	4827.74	1418.78	33.0611789	-108.5372751
Poff & Ward	Martin Creek	NV	10329500	83	453.9	1432.56	41.5346175	-117.4179047
Poff & Ward	Owego Creek	NY	1514000	48	479.15	249.88	42.1292409	-76.2704886
Poff & Ward	Auglaize River	OH	4186500	83	859.88	217.51	40.9486617	-84.2660591
Poff & Ward	Conneaut Creek	OH	4213000	82	453.25	186.02	41.926999	-80.6039659
Poff & Ward	Dry Creek	OK	7243000	39	178.71	249.94	35.7820086	-96.8541914

Poff & Ward	Im Fork of N.F. Red Riv	OK	7303400	45	1077.44	522.72	35.01172	-99.9037144
Poff & Ward	Blue River	OK	7332500	68	1232.83	153.5	33.9970408	-96.2410986
Poff & Ward	Silvies River	OR	10393500	88	2419.05	1278.64	43.7151478	-119.1774421
Poff & Ward	Smith River	OR	14158790	44	41.96	795.53	44.3345666	-122.0470074
Poff & Ward	outh Fork McKenzie Riv	OR	14159200	47	414.4	521.06	44.047067	-122.2178245
Poff & Ward	Towanda Creek	PA	1532000	90	556.85	233.33	41.7070195	-76.4846654
Poff & Ward	Penns Creek	PA	1555000	75	779.59	154.45	40.8667492	-77.0483088
Poff & Ward	Upper Three Runs	SC	2197300	36	225.33	53.25	33.3848664	-81.616498
Poff & Ward	Moreau River	SD	6359500	61	6889.37	682.35	45.1977583	-102.1565472
Poff & Ward	Keya Paha River	SD	6464500	67	2771.29	624.77	43.0288928	-99.780671
Poff & Ward	Duck River	TN	3596000	64	277.13	267.68	35.4709099	-86.1216556
Poff & Ward	North Croton Creek	TX	8082180	21	650.09	445.75	33.383148	-100.0812116
Poff & Ward	Beaver Creek	TX	8150800	41	556.85	381.99	30.6435155	-99.0958848
Poff & Ward	San Marcos River	TX	8172000	65	2170.41	98.16	29.6663404	-97.6508314
Poff & Ward	Ecleto Creek	TX	8186500	42	619.01	65.54	28.9202542	-97.7722221
Poff & Ward	Pine Creek	UT	9337000	54	176.38	1950.72	37.8624875	-111.6360113
Poff & Ward	East Fork Virgin River	UT	9404450	38	192.18	1798.32	37.3394272	-112.6043769
Poff & Ward	Moose River	VT	1134500	57	194.77	336.5	44.5117231	-71.8373143
Poff & Ward	Green River	WA	12104500	48	249.16	451.1	47.2076095	-121.5531519
Poff & Ward	Newaukum Creek	WA	12108500	60	70.97	94.49	47.2756564	-122.059559
Poff & Ward	White Salmon River	WA	14121300	21	83.92	938.78	46.1037299	-121.6086938
Poff & Ward	Black Earth Creek	WI	5406500	50	118.1	247.79	43.1341598	-89.732345
Poff & Ward	Williams River	WV	3186500	75	331.52	668.57	38.3789992	-80.4839737
Poff & Ward	outh Fork Shoshone Riv	WY	6280300	48	769.23	1889.76	44.2082824	-109.5548879
Poff & Ward	East Fork River	WY	9203000	54	205.13	2346.96	42.6725	-109.4216667
Sabo & Post	Power Creek	AK	15216000	48	53.09	10.21	60.5866754	-145.620022
Sabo & Post	Kenai River	AK	15258000	57	1642.05	127.99	60.4921927	-149.8099203
Sabo & Post	Ship Creek	AK	15276000	58	231.8	149.35	61.2250062	-149.6372008
Sabo & Post	Yukon River	AK	15356000	54	293963.65	259.08	64.789168	-141.2000892
Sabo & Post	Kuparuk River	AK	15896000	33	8106.66	0	70.2813854	-148.9627861
Sabo & Post	Show Low Creek	AZ	9390500	51	177.67	2014.73	34.1794876	-109.9878858
Sabo & Post	San Pedro River	AZ	9471000	100	3196.05	1205.18	31.6259264	-110.1745226
Sabo & Post	Sacramento River	CA	11425500	75	55039.84	-0.91	38.7743458	-121.5982928
Sabo & Post	South Fork Eel River	CA	11475500	24	113.7	421.73	39.7190446	-123.6527961
Sabo & Post	Elder Creek	CA	11475560	37	16.83	424	39.7295997	-123.6439073
Sabo & Post	South Platte River	CO	6707500	108	6679.58	1852.71	39.4091558	-105.1699899
Sabo & Post	Colorado River	CO	9163500	53	46213.16	1318.26	39.1327605	-109.0270546
Sabo & Post	Silver Springs	FL	2239500	72	--	11.88	29.2124764	-82.0539782
Sabo & Post	Alakahi Stream	HI	16725000	40	2.25	1188.72	20.0711044	-155.6708307
Sabo & Post	Mississippi River	MN	5288500	73	49468.77	245.22	45.1266319	-93.2968947
Sabo & Post	Cartoogechaye Creek	NC	3500240	43	147.89	614.84	35.1588889	-83.3941667
Sabo & Post	Shooting Creek	NC	3546000	33	97.38	588.36	35.0248137	-83.7073906
Sabo & Post	Painted Woods Creek	ND	6341800	46	1105.92	537.95	47.2749942	-100.7920791
Sabo & Post	Rio Grande River	NM	8319000	77	41698.81	1559.27	35.4442023	-106.4403039
Sabo & Post	Hudson River	NY	1327750	104	7277.87	30.48	43.2695174	-73.595949
Sabo & Post	Ohio Brush Creek	OH	3237500	78	1002.33	155.63	38.8036838	-83.4210227
Sabo & Post	Cimarron River	OK	7160000	67	43750.08	273.25	35.9206022	-97.4258744
Sabo & Post	Bird Creek	OK	7176500	59	942.76	198.51	36.4867544	-96.0641633
Sabo & Post	Canadian River	OK	7231500	99	72395.35	208.09	34.9778669	-96.2436172
Sabo & Post	Tennessee River	TN	3568000	130	55425.75	189.32	35.0867756	-85.2784299
Sabo & Post	Helotes Creek	TX	8181400	37	38.86	309.32	29°34'42"	98°41'29"
Sabo & Post	Red River	TX	7316000	68	79725.01	191.39	33.7278833	-97.160013

Sabo & Post	Mount Run	VA	1665000	50	41.18	118.71	38.4806813	-78.0524983
Sabo & Post	Columbia River	WA	12399500	66	154622.29	365.76	49.0007497	-117.6294206
Sabo & Post	Yukon River	Yukon Terr.	15305350	44	81843.62	0	62.0955606	-136.2736643

CDC	CV	C	M	P	$v_1$	$v_2$	$v_3$	$v_4$
NAD83	43.7	0.16	0.23	0.39	43.696	0.16	0.231	0.391
NAD83	39.39	0.18	0.2	0.38	39.386	0.183	0.196	0.379
NAD83	--	--	--	--	NaN	NaN	NaN	NaN
NAD83	29.23	0.32	0.17	0.49	29.233	0.325	0.168	0.493
NAD83	23.9	0.4	0.1	0.5	23.897	0.402	0.095	0.497
NAD83	141.14	0.22	0.16	0.38	141.137	0.216	0.161	0.377
NAD83	47.61	0.21	0.22	0.43	47.605	0.209	0.217	0.426
NAD83	--	--	--	--	NaN	NaN	NaN	NaN
NAD83	97.09	0.03	0.16	0.19	97.094	0.029	0.161	0.189
NAD83	59.95	0.06	0.26	0.32	59.952	0.059	0.262	0.321
NAD83	26.27	0.38	0.19	0.57	26.27	0.383	0.191	0.575
NAD83	26.95	0.41	0.19	0.6	26.952	0.412	0.192	0.604
NAD83	24.97	0.39	0.26	0.65	24.967	0.385	0.26	0.645
NAD83	29.9	0.32	0.35	0.67	29.899	0.317	0.351	0.668
NAD83	36.43	0.27	0.35	0.62	36.429	0.273	0.349	0.622
NAD83	20.84	0.54	0.26	0.8	20.84	0.542	0.257	0.798
NAD83	15.76	0.54	0.09	0.63	15.758	0.542	0.089	0.631
NAD83	32.83	0.31	0.12	0.43	32.834	0.305	0.12	0.425
NAD83	24.72	0.35	0.11	0.46	24.722	0.347	0.114	0.461
NAD83	38.32	0.23	0.2	0.43	38.325	0.229	0.203	0.431
NAD83	73.95	0.01	0.26	0.27	73.949	0.008	0.259	0.267
NAD83	40.69	0.17	0.17	0.34	40.693	0.173	0.171	0.344
NAD83	34.53	0.22	0.16	0.38	34.526	0.219	0.164	0.383
NAD83	159.17	0.23	0.15	0.38	159.175	0.226	0.149	0.375
NAD83	60.79	0.13	0.11	0.24	60.787	0.13	0.114	0.243
NAD83	40.46	0.16	0.18	0.34	40.464	0.157	0.183	0.34
NAD83	--	--	--	--	NaN	NaN	NaN	NaN
NAD83	--	--	--	--	NaN	NaN	NaN	NaN
NAD83	20.23	0.46	0.15	0.61	20.231	0.458	0.152	0.61
NAD83	9.68	0.67	0.06	0.74	9.678	0.674	0.061	0.735
NAD83	31.29	0.28	0.19	0.47	31.291	0.283	0.186	0.469
NAD83	--	--	--	--	NaN	NaN	NaN	NaN
NAD83	--	--	--	--	NaN	NaN	NaN	NaN
NAD83	20.57	0.56	0.26	0.82	20.57	0.561	0.256	0.816
NAD83	21.41	0.45	0.22	0.67	21.412	0.454	0.22	0.673
NAD83	42.72	0.18	0.17	0.35	42.719	0.181	0.171	0.353
NAD83	15.36	0.57	0.07	0.63	15.362	0.566	0.067	0.633
NAD83	11.98	0.64	0.08	0.71	11.978	0.638	0.076	0.714
NAD83	--	--	--	--	NaN	NaN	NaN	NaN
NAD83	1.5	0.75	0.01	0.76	1.497	0.751	0.009	0.759
NAD83	19.12	0.52	0.06	0.58	19.119	0.521	0.061	0.583
NAD83	196.08	0.28	0.14	0.42	196.076	0.279	0.141	0.42
NAD83	21.67	0.45	0.23	0.68	21.675	0.453	0.232	0.685
NAD83	33.73	0.23	0.15	0.38	33.727	0.232	0.152	0.384
NAD83	133.18	0.14	0.23	0.37	133.177	0.136	0.232	0.368
NAD83	18.58	0.47	0.09	0.56	18.58	0.47	0.095	0.565
NAD83	36.88	0.3	0.28	0.58	36.882	0.296	0.282	0.578
NAD83	28.07	0.34	0.19	0.54	28.068	0.343	0.193	0.536
NAD83	34.4	0.24	0.14	0.39	34.402	0.244	0.142	0.385
NAD83	31.74	0.27	0.18	0.44	31.741	0.265	0.176	0.441
NAD83	79.85	0.03	0.17	0.2	79.845	0.028	0.168	0.195

NAD83	--	--	--	--	NaN	NaN	NaN	NaN
NAD83	25.21	0.36	0.13	0.49	25.21	0.363	0.131	0.494
NAD83	33.37	0.23	0.23	0.47	33.366	0.234	0.231	0.465
NAD83	37.2	0.25	0.29	0.54	37.199	0.25	0.289	0.539
NAD83	--	--	--	--	NaN	NaN	NaN	NaN
NAD83	29.26	0.3	0.18	0.47	29.264	0.299	0.176	0.474
NAD83	16.83	0.52	0.13	0.65	16.827	0.515	0.133	0.649
NAD83	5.41	0.7	0.02	0.72	5.414	0.701	0.016	0.717
NAD83	56	0.07	0.18	0.25	55.997	0.072	0.179	0.251
NAD83	20.1	0.42	0.13	0.55	20.099	0.421	0.128	0.549
NAD83	--	--	--	--	NaN	NaN	NaN	NaN
NAD83	107.26	0.05	0.12	0.17	107.263	0.049	0.12	0.17
NAD83	69.65	0.03	0.18	0.21	69.65	0.028	0.18	0.207
NAD83	15.8	0.58	0.04	0.62	15.796	0.579	0.042	0.62
NAD83	--	--	--	--	NaN	NaN	NaN	NaN
NAD83	42.06	0.15	0.15	0.3	42.061	0.151	0.146	0.298
NAD83	20.79	0.47	0.15	0.62	20.789	0.474	0.148	0.622
NAD83	22.91	0.4	0.15	0.55	22.913	0.402	0.152	0.554
NAD83	--	--	--	--	NaN	NaN	NaN	NaN
NAD83	20.66	0.46	0.2	0.66	20.661	0.456	0.202	0.658
NAD83	8.96	0.68	0.1	0.78	8.963	0.684	0.098	0.782
NAD83	10.09	0.66	0.03	0.69	10.085	0.656	0.032	0.688
NAD83	28.38	0.33	0.15	0.48	28.376	0.333	0.147	0.48
NAD83	20.01	0.57	0.27	0.83	20.007	0.566	0.269	0.835
NAD83	41.03	0.22	0.31	0.53	41.034	0.221	0.311	0.532
NAD83	20.87	0.44	0.23	0.68	20.875	0.443	0.233	0.676
NAD83	13.1	0.68	0.23	0.91	13.1	0.683	0.226	0.909
NAD83	25.36	0.38	0.31	0.69	25.36	0.376	0.314	0.691
NAD83	8.71	0.7	0.27	0.97	8.709	0.699	0.267	0.966
NAD83	104.31	0.32	0.44	0.76	104.309	0.317	0.439	0.755
NAD83	60.51	0.1	0.16	0.26	60.513	0.099	0.156	0.255
NAD83	44.1	0.21	0.23	0.44	44.1	0.208	0.229	0.437
NAD83	6.33	0.7	0.05	0.76	6.333	0.704	0.053	0.757
NAD83	48.5	0.14	0.35	0.49	48.495	0.142	0.352	0.494
NAD83	62.79	0.09	0.33	0.42	62.786	0.095	0.327	0.422
NAD83	13.31	0.6	0.23	0.83	13.312	0.596	0.23	0.826
NAD83	7.81	0.68	0.05	0.73	7.813	0.678	0.053	0.73
NAD83	3.37	0.71	0	0.72	3.365	0.714	0.003	0.717
NAD83	61.58	0.07	0.12	0.19	61.58	0.071	0.122	0.194
NAD83	7.57	0.71	0.06	0.76	7.565	0.706	0.058	0.764
NAD83	15.38	0.56	0.1	0.66	15.379	0.56	0.105	0.665
NAD83	--	--	--	--	NaN	NaN	NaN	NaN
NAD83	37.19	0.16	0.12	0.28	37.187	0.163	0.118	0.281
NAD83	9.82	0.64	0.07	0.72	9.825	0.645	0.073	0.718
NAD83	6.65	0.7	0.07	0.77	6.652	0.698	0.067	0.765
NAD83	43.48	0.15	0.21	0.36	43.485	0.147	0.211	0.358
NAD83	18.17	0.46	0.08	0.54	18.174	0.462	0.075	0.538
NAD83	36.48	0.19	0.12	0.3	36.479	0.186	0.116	0.302
NAD83	22.69	0.37	0.14	0.5	22.689	0.366	0.135	0.501
NAD83	6.02	0.7	0.02	0.72	6.021	0.7	0.024	0.723
NAD27	220.68	0.6504	0.0722	0.7226	236.107	0.65	0.072	0.723
NAD83	17.3	0.48	0.06	0.54	17.303	0.476	0.064	0.539

NAD83	--	--	--	--	NaN	NaN	NaN	NaN
NAD83	2.8	0.71	0.06	0.77	2.798	0.712	0.057	0.769
NAD83	6.67	0.7	0.25	0.95	6.666	0.699	0.255	0.954

$V_5$	$a_1$	$a_2$	$a_3$	$a_4$	$a_5$	$A_{rms}$	$N_{rms}$	SNR
1	2	--	--	--	0	0.308	0.007	75.464
1	--	--	--	--	0	0.35	0.007	76.951
--	--	--	--	--	--	--	--	--
1	--	--	--	--	0	0.235	0.006	74.532
1	2	--	--	--	0	0.097	0.005	59.136
1	2	--	--	--	1	0.707	0.025	66.63
1	2	--	--	--	0	0.329	0.008	75.557
--	--	--	--	--	--	--	--	--
1	--	--	--	--	1	0.746	0.019	73.621
1	--	--	--	--	1	0.651	0.008	87.53
1	2	3	--	--	0	0.166	0.004	75.65
1	--	--	--	--	0	0.27	0.005	81.701
1	--	--	--	--	0	0.287	0.003	89.794
1	2	--	--	--	0	0.287	0.003	92.446
1	2	3	4	--	0	0.238	0.003	84.724
1	2	3	4	--	0	0.135	0.002	84.386
1	--	--	--	--	0	0.116	0.003	72.734
1	2	--	--	--	0	0.172	0.006	67.121
1	2	3	--	--	0	0.114	0.005	61.75
1	--	--	--	--	0	0.344	0.007	77.076
1	--	--	--	--	1	0.739	0.013	81.354
1	2	--	--	--	0	0.243	0.008	68.483
1	--	--	--	--	0	0.287	0.007	73.991
--	--	--	--	--	--	--	0.019	--
1	--	--	--	--	0	0.233	0.011	61.421
1	--	--	--	--	0	0.356	0.008	75.855
--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--
2	1	3	4	--	0	0.096	0.004	66.171
1	2	--	--	--	0	0.044	0.002	62.484
2	1	--	--	--	0	0.199	0.006	70.887
--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--
1	2	3	4	--	0	0.131	0.002	83.322
1	2	--	--	--	0	0.167	0.003	80.768
1	2	--	--	--	0	0.243	0.008	68.771
1	--	--	--	--	0	0.092	0.003	67.816
1	--	--	--	--	0	0.091	0.002	73.258
--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	0	--
1	--	--	--	--	0	0.089	0.004	61.436
1	2	--	--	--	1	0.616	0.032	58.981
1	2	3	--	--	0	0.152	0.003	78.448
1	--	--	--	--	0	0.246	0.008	68.455
1	2	--	--	--	1	0.718	0.024	67.631
2	--	--	--	--	0	0.074	0.004	56.973
1	2	4	--	--	0	0.248	0.005	76.753
1	2	--	--	--	0	0.192	0.005	73.745
1	--	--	--	--	0	0.237	0.007	70.652
1	2	--	--	--	0	0.203	0.006	70.528
1	2	--	--	--	1	0.454	0.019	63.699



--	--	--	--	--	--	--	--	--
1	2	--	--	--	0	0.134	0.005	64.396
1	2	--	--	--	0	0.287	0.005	80.767
1	2	--	--	--	0	0.305	0.005	83.115
--	--	--	--	--	--	--	--	--
1	2	--	--	--	0	0.196	0.005	72.576
1	--	--	--	--	0	0.142	0.003	75.933
1	--	--	--	--	0	0.02	0.001	55.846
1	--	--	--	--	0	0.407	0.013	68.99
1	2	--	--	--	0	0.131	0.004	69.464
--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	0.025	--
1	--	--	--	--	0	0.419	0.016	65.861
--	--	--	--	--	--	--	0.004	--
--	--	--	--	--	--	--	--	--
1	2	--	--	--	0	0.221	0.01	62.464
1	2	--	--	--	0	0.12	0.003	71.208
2	1	3	--	--	0	0.113	0.004	64.756
--	--	--	--	--	--	--	--	--
1	2	3	--	--	0	0.123	0.003	73.218
1	2	--	--	--	0	0.056	0.002	70.572
--	--	--	--	--	--	--	0.002	--
1	--	--	--	--	0	0.233	0.005	75.352
1	2	3	--	--	0	0.151	0.002	89.412
1	2	3	--	--	0	0.309	0.004	86.023
1	3	--	--	--	0	0.178	0.003	83.51
1	2	3	--	--	0	0.1	0.001	88.491
1	2	3	4	--	0	0.163	0.002	84.079
1	2	3	4	--	0	0.059	0.001	91.363
1	3	4	2	6	1	0.619	0.009	84.921
2	--	--	--	--	0	0.178	0.013	52.785
2	3	--	--	--	0	0.172	0.008	60.192
1	2	--	--	--	0	0.033	0.001	66.039
1	--	--	--	--	1	0.563	0.007	88.932
1	--	--	--	--	1	0.704	0.009	86.878
1	2	--	--	--	0	0.112	0.002	83.184
1	2	3	--	--	0	0.042	0.001	69.729
--	--	--	--	--	--	--	0.001	--
1	--	--	--	--	0	0.173	0.014	49.585
1	2	--	--	--	0	0.042	0.002	66.38
1	--	--	--	--	0	0.126	0.003	75.547
--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	0.014	--
1	--	--	--	--	0	0.089	0.002	77.323
1	2	--	--	--	0	0.038	0.001	67.426
1	--	--	--	--	0	0.408	0.008	79.841
1	--	--	--	--	0	0.092	0.004	60.4
1	--	--	--	--	0	0.251	0.01	64.048
1	2	--	--	--	0	0.133	0.005	65.199
1	2	--	--	--	0	0.021	0.001	55.369
--	--	--	--	--	--	--	0.052	--
1	--	--	--	--	0	0.079	0.004	59.624

--	--	--	--	--	--	--	--	--
2	1	3	--	--	0	0.014	0.001	64.967
1	3	2	--	--	0	0.052	0	95.47

$\theta_d$	$\theta_a$	$\sigma_{\text{lf}}$	$\sigma_{\text{rf}}$	$Q_2$	$Q_{10}$	$L_2$	$L_{10}$	$\overline{ZF}$
1.453	-0.459	0.476	0.237	1.885	2.093	0.346	0.144	0
1.353	0	0.688	0.274	1.845	2.064	0.366	0.119	0.05
--	--	--	--	--	--	--	--	--
1.369	0	0.471	0.186	1.601	1.716	0.594	0.524	0
1.24	0	0.589	0.228	1.676	2.139	0.598	0.291	0
1.495	0	2.491	0.938	4.313	5.969	0.068	-0.018	57.1
1.753	0	0.772	0.331	2.047	2.51	0.566	0.414	0
--	--	--	--	--	--	--	--	--
1.284	0	2.223	0.652	3.323	5.068	0.265	-0.029	0
1.65	0	0.631	0.314	2.168	2.483	0.39	0.079	36.55
1.807	0	0.262	0.159	1.522	1.65	0.722	0.636	0
1.707	0	0.433	0.189	1.678	1.86	0.748	0.692	0
1.821	0	0.299	0.131	1.468	1.584	0.669	0.613	0
1.691	-0.404	0.166	0.178	1.654	1.795	0.481	0.239	0
1.994	0	0.216	0.195	1.867	2.022	0.592	0.497	0
2.076	0	0.107	0.112	1.481	1.566	0.772	0.706	0
1.617	0	0.232	0.164	1.302	1.396	0.821	0.63	0
2.233	-0.225	0.305	0.23	1.526	1.664	0.562	0.429	0
1.982	0	0.296	0.271	1.547	1.7	0.653	0.435	0
1.614	0	0.517	0.242	1.909	2.055	0.446	0.298	0
1.347	0	0.943	0.43	2.424	2.647	0.035	0.006	15.15
2.159	0.533	0.458	0.383	1.715	1.85	0.326	0.077	8.1
1.59	0	0.509	0.21	1.826	1.921	0.429	0.268	0
1.466	1.011	2.227	0.367	3.508	5.417	0.164	0.033	133.75
1.866	0.773	1.009	0.51	1.779	2.419	0.603	0.062	21.6
1.764	0	0.548	0.298	1.795	1.923	0.236	0.129	0
--	--	--	--	--	--	--	--	--
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2.456	0	0.253	0.157	1.511	1.578	0.676	0.539	0
1.879	-0.33	0.142	0.085	1.185	1.292	0.849	0.772	0
2.014	0	0.315	0.244	1.708	1.826	0.586	0.335	2.4
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2.134	0	0.145	0.113	1.556	1.665	0.728	0.65	0
2.433	0	0.258	0.137	1.448	1.53	0.761	0.705	0
2.217	0	0.493	0.286	1.704	1.865	0.332	0.177	0
1.242	0	0.294	0.134	1.284	1.385	0.852	0.689	0
1.393	0	0.175	0.092	1.242	1.3	0.834	0.76	0
--	--	--	--	--	--	--	--	--
1.207	0.825	0.027	0.026	1.027	1.048	0.975	0.956	0
1.406	0	0.496	0.17	1.475	1.725	0.772	0.653	0
1.136	0	4.794	6.363	5.796	8.034	0.563	0.272	129.65
1.825	0	0.193	0.151	1.486	1.679	0.721	0.616	0
1.775	0.187	0.598	0.358	1.942	2.331	0.549	0.317	0
1.503	0	2.727	0.761	4.145	7.001	0.03	0.03	121.3
1.881	0	0.461	0.154	1.455	1.677	0.752	0.669	0
1.816	0	0.565	0.239	1.759	2.082	0.637	0.548	0
1.614	0	0.38	0.178	1.557	1.665	0.588	0.511	0
1.956	0	0.452	0.292	1.688	1.802	0.585	0.359	0
1.753	0	0.409	0.203	1.598	1.693	0.452	0.264	0
1.087	0	1.639	0.615	2.927	3.745	0.351	0.057	44.75

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1.503	-0.382	0.464	0.18	1.615	1.801	0.736	0.453	0
2.302	0	0.319	0.221	1.741	1.939	0.514	0.259	0
1.867	0	0.361	0.23	1.629	1.735	0.423	0.375	0
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1.587	0.219	0.393	0.196	1.579	1.694	0.501	0.286	0
1.734	-0.603	0.248	0.121	1.372	1.483	0.731	0.652	0
1.074	0	0.122	0.045	1.107	1.144	0.951	0.898	0
1.96	0	0.971	0.671	2.583	3.126	0.279	0.024	15.55
2.257	0	0.332	0.184	1.54	1.807	0.677	0.416	0
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1.292	0	2.68	0	3.772	5.573	0.093	0.022	27.2
1.344	0	1.542	0.416	2.759	3.456	0.078	-0.024	10.25
1.518	0	0.393	0.124	1.337	1.571	0.878	0.777	0
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1.505	0	0.708	0.398	2.38	3.1	0.463	0.137	0
1.494	0	0.282	0.144	1.27	1.72	0.772	0.59	0
1.601	0	0.291	0.187	1.565	1.648	0.558	0.424	0
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1.555	0	0.279	0.139	1.448	1.57	0.734	0.665	0
1.63	0	0.137	0.066	1.208	1.276	0.878	0.849	0
1.247	-1.027	0.31	0.082	1.297	1.456	0.888	0.795	0
1.58	0	0.332	0.221	1.451	1.519	0.453	0.235	0
1.985	0	0.114	0.102	1.482	1.551	0.763	0.728	0
2.226	0	0.242	0.216	2.003	2.108	0.538	0.332	0
1.557	0	0.209	0.116	1.37	1.454	0.668	0.585	0
3.016	0	0.1	0.053	1.228	1.276	0.802	0.742	0
2.006	0	0.185	0.135	1.491	1.555	0.589	0.333	0
2.441	0	0.059	0.039	1.147	1.18	0.894	0.859	0
2.026	0	0.759	0.861	3.048	3.223	0.664	0.163	168.4
1.796	0	1.205	0.389	2.548	3.429	0.273	0.016	0
1.3	0	0.853	0.425	2.101	2.502	0.403	0.225	0
2.687	0	0.074	0.054	1.147	1.174	0.929	0.818	0
1.764	0	0.572	0.311	1.998	2.182	0.314	0.245	0
1.895	0.788	0.745	0.377	2.406	2.782	0.255	0.175	0
1.799	0	0.132	0.09	1.282	1.418	0.77	0.68	0
2.29	0	0.07	0.065	1.186	1.263	0.91	0.856	0
2.158	0.789	0.017	0.06	1.024	1.055	0.986	0.943	0
1.092	0	0.961	0.421	2.109	2.492	0.19	0.078	0
1.96	0.572	0.079	0.08	1.177	1.245	0.904	0.817	0
1.302	0	0.242	0.113	1.325	1.384	0.811	0.71	0
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2.167	0	1.187	0.715	2.816	3.584	0.426	-0.03	1.65
1.906	0	0.088	0.116	1.214	1.336	0.828	0.703	0
1.52	1.181	0.071	0.064	1.19	1.233	0.916	0.82	0
1.442	-0.599	0.496	0.277	1.706	1.832	0.286	0.073	0
1.863	0	0.349	0.168	1.533	1.719	0.676	0.295	0
1.454	0	0.748	0.337	2.22	2.417	0.548	0.159	0
1.725	0.915	0.34	0.235	1.581	1.729	0.529	0.2	0
1.405	0.437	0.074	0.069	1.147	1.194	0.903	0.852	0
1.658	-0.594	6.4	0	7.343	11.279	0	0	277.6
2.12	0.764	0.294	0.153	1.442	1.582	0.76	0.653	0

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1.887	1.076	0.023	0.027	1.092	1.137	0.933	0.903	0
2.56	0	0.031	0.025	1.111	1.14	0.912	0.881	0

$\sigma_{ZF}$	$Zf_{max}$	$ZF_{min}$
0	0	0
0.22	1	0
--	--	--
0	0	0
0	0	0
66.62	269	0
0	0	0
--	--	--
0	0	0
52.38	161	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
22.83	72	0
29.55	133	0
0	0	0
110.4	364	0
48.16	168	0
0	0	0
--	--	--
--	--	--
0	0	0
0	0	0
10.73	48	0
--	--	--
--	--	--
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
--	--	--
0	0	0
0	0	0
78.49	282	0
0	0	0
0	0	0
67.64	232	6
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
56.93	172	0

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0	0	0
0	0	0
0	0	0
--	--	--
0	0	0
0	0	0
0	0	0
22.25	61	0
0	0	0
--	--	--
35.25	107	0
17.08	50	0
0	0	0
--	--	--
0	0	0
0	0	0
0	0	0
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0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
21.58	208	137
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
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7.38	33	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
68.23	356	112
0	0	0

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