

SecondOrderPolynomial

Curve Fit on Noisy Data to retrieve the coefficients

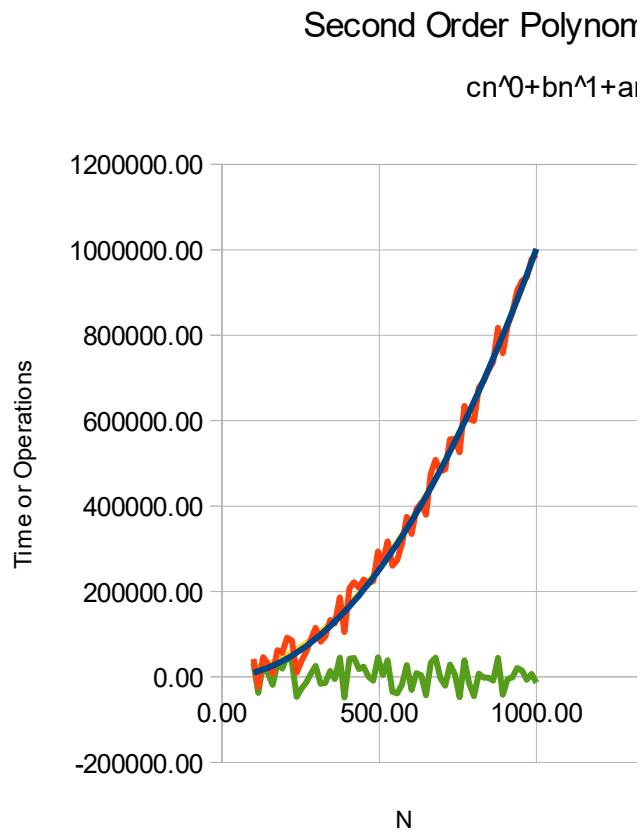
		$cn^0 + bn^1 + an^2$		Calculated
		1.00	= a	1.00211
		2.00	= b	-13.1327
		3.00	= c	10853.7
		50000.00	= Noise	
# Data Points	N^0	N^1	N^2	Tim or #Ops
1	1	100.00	10000.00	10203.00
2	1	115.25	13283.54	13517.05
3	1	130.51	17032.46	17296.48
4	1	145.76	21246.77	21541.29
5	1	161.02	25926.46	26251.49
6	1	176.27	31071.53	31427.07
7	1	191.53	36681.99	37068.04
8	1	206.78	42757.83	43174.39
9	1	222.03	49299.05	49746.12
10	1	237.29	56305.66	56783.24
11	1	252.54	63777.65	64285.73
12	1	267.80	71715.02	72253.62
13	1	283.05	80117.78	80686.88
14	1	298.31	88985.92	89585.53
15	1	313.56	98319.45	98949.57
16	1	328.81	108118.36	108778.98
17	1	344.07	118382.65	119073.78
18	1	359.32	129112.32	129833.97
19	1	374.58	140307.38	141059.54
20	1	389.83	151967.83	152750.49
21	1	405.08	164093.65	164906.82
22	1	420.34	176684.86	177528.54
23	1	435.59	189741.45	190615.64
24	1	450.85	203263.43	204168.12
25	1	466.10	217250.79	218185.99
26	1	481.36	231703.53	232669.25
27	1	496.61	246621.66	247617.88
28	1	511.86	262005.17	263031.90
29	1	527.12	277854.06	278911.30
30	1	542.37	294168.34	295256.09
31	1	557.63	310948.00	312066.26
32	1	572.88	328193.05	329341.81
33	1	588.14	345903.48	347082.75
34	1	603.39	364079.29	365289.07
35	1	618.64	382720.48	383960.77
36	1	633.90	401827.06	403097.86
37	1	649.15	421399.02	422700.33

SecondOrderPolynomial

38	1	664.41	441436.37	442768.18
39	1	679.66	461939.10	463301.42
40	1	694.92	482907.21	484300.04
41	1	710.17	504340.71	505764.05
42	1	725.42	526239.59	527693.43
43	1	740.68	548603.85	550088.21
44	1	755.93	571433.50	572948.36
45	1	771.19	594728.53	596273.90
46	1	786.44	618488.94	620064.82
47	1	801.69	642714.74	644321.13
48	1	816.95	667405.92	669042.82
49	1	832.20	692562.48	694229.89
50	1	847.46	718184.43	719882.35
51	1	862.71	744271.76	746000.18
52	1	877.97	770824.48	772583.41
53	1	893.22	797842.57	799632.01
54	1	908.47	825326.06	827146.00
55	1	923.73	853274.92	855125.38
56	1	938.98	881689.17	883570.14
57	1	954.24	910568.80	912480.28
58	1	969.49	939913.82	941855.80
59	1	984.75	969724.22	971696.71
60	1	1000.00	1000000.00	1002003.00

SecondOrderPolynomial

Noise	Measurement with Noise	Calculated from Noise
31867.29	42070.29	19561.53
-37124.06	-23607.01	22651.67
28967.33	46263.81	26208.17
9135.99	30677.28	30231.04
-18771.60	7479.89	34720.28
31500.37	62927.44	39675.88
19348.69	56416.73	45097.84
49139.85	92314.24	50986.17
35339.73	85085.85	57340.87
-46767.00	10016.23	64161.93
-27007.42	37278.31	71449.36
-12640.19	59613.43	79203.15
8092.52	88779.40	87423.31
25589.78	115175.31	96109.83
-16211.96	82737.60	105262.72
-14036.56	94742.43	114881.98
14176.23	133250.01	124967.60
-5052.90	124781.07	135519.58
44968.18	186027.72	146537.93
-47732.61	105017.87	158022.65
42814.46	207721.28	169973.73
44308.67	221837.21	182391.18
18172.67	208788.31	195274.99
23779.93	227948.05	208625.17
1172.69	219358.68	222441.72
-8472.70	224196.55	236724.62
45931.92	293549.80	251473.90
4314.58	267346.48	266689.54
38597.43	317508.74	282371.55
-34548.55	260707.54	298519.92
-38257.67	273808.58	315134.65
-17923.01	311418.80	332215.76
27578.75	374661.50	349763.22
-30234.86	335054.21	367777.06
8876.82	392837.59	386257.26
3974.05	407071.91	405203.82
-42938.74	379761.59	424616.75



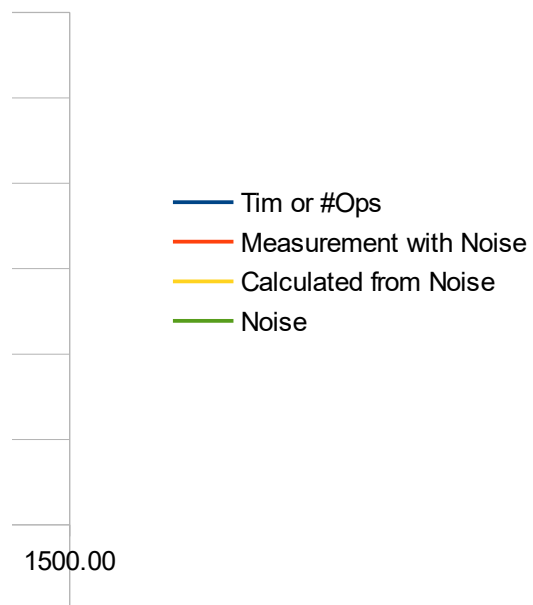
SecondOrderPolynomial

33212.50	475980.68	444496.04
45340.23	508641.65	464841.71
-2577.83	481722.21	485653.73
-20159.21	485604.84	506932.12
28891.39	556584.83	528676.88
6607.63	556695.83	550888.00
-47368.23	525580.13	573565.49
38553.67	634827.56	596709.34
-15368.36	604696.46	620319.56
-44823.36	599497.76	644396.15
7727.15	676769.96	668939.10
-1696.20	692533.68	693948.41
-1954.42	717927.93	719424.09
-8483.99	737516.19	745366.14
44861.96	817445.37	771774.55
-41334.30	758297.71	798649.33
-4725.51	822420.50	825990.47
-1124.59	854000.79	853797.98
21053.31	904623.45	882071.85
15035.23	927515.51	910812.09
-6425.83	935429.97	940018.69
6929.36	978626.06	969691.66
-13322.71	988680.29	999831.00

SecondOrderPolynomial

rial with Noise

n^2



SecondOrderPolynomial