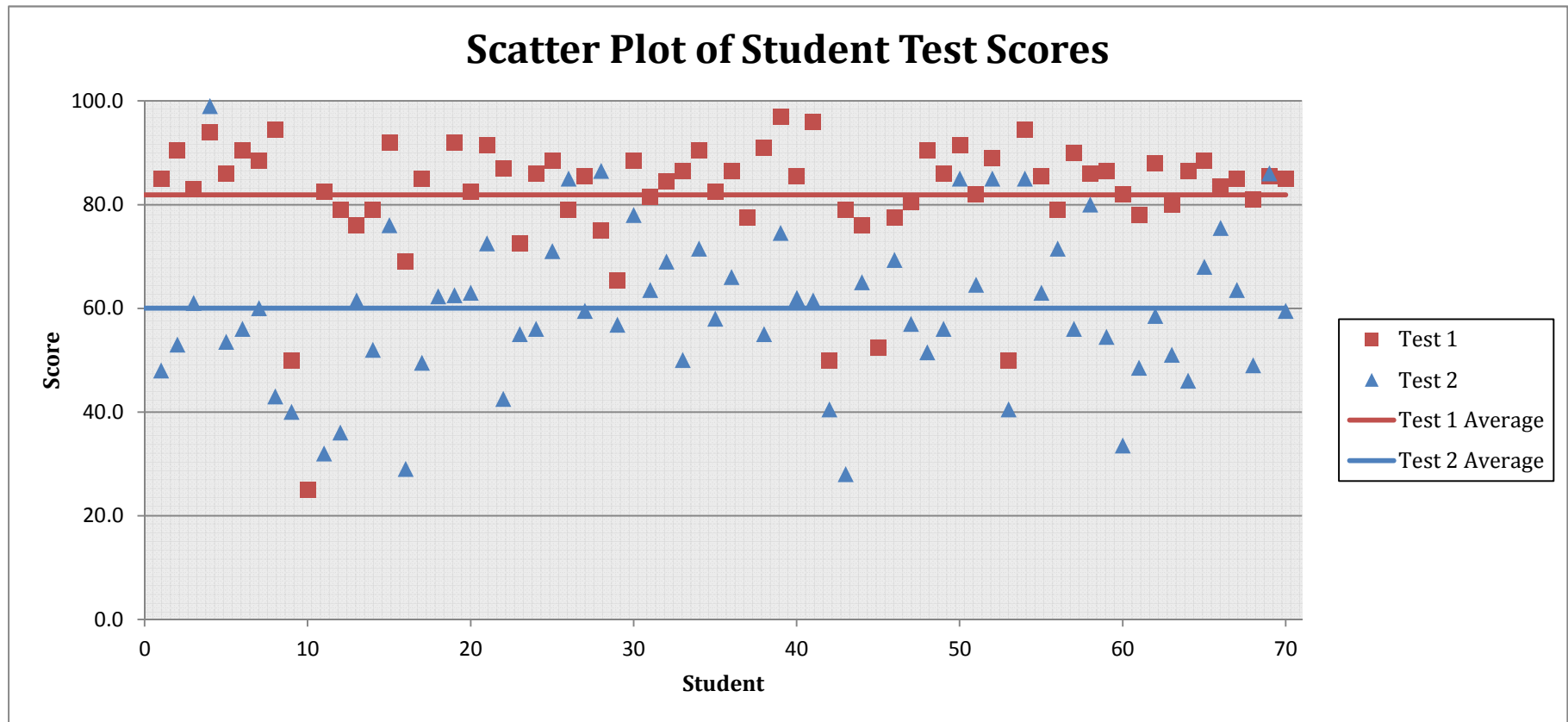


<b>Student Test Score Data</b>		
Name	Test #1	Test #2
Adrienne	85.0	48.0
Amanda	90.5	53.0
Angela	83.0	61.0
Ann	94.0	99.0
Ashlea	86.0	53.5
Beth	90.5	56.0
Brett	88.5	60.0
Brooke	94.5	43.0
Bryan	50.0	40.0
Casie	25.0	
Chad	82.5	32.0
Christopher	79.0	36.0
Daniel	76.0	61.5
Daniel	79.0	52.0
David	92.0	76.0
Ellie	69.0	29.0
Garret	85.0	49.5
Hannah		62.3
Heather	92.0	62.5
Heather	82.5	63.0
Heather	91.5	72.5
Heather	87.0	42.5
Ian	72.5	55.0
Jaclyn	86.0	56.0
Jacob	88.5	71.0
Jason	79.0	85.0
Jennifer	85.5	59.5
Jennifer	75.0	86.5
Jennifer	65.5	56.8
Jessica	88.5	78.0
Jessica	81.5	63.5
Jill	84.5	69.0
John-David	86.5	50.0
Joseph	90.5	71.5
Joseph	82.5	58.0
Joshua	86.5	66.0
Justin	77.5	
Kara	91.0	55.0
Kathryn	97.0	74.5
Kenneth	85.5	62.0
Kristin	96.0	61.5
Kristina	50.0	40.5

Laura	79.0	28.0
Lauren	76.0	65.0
Lauren	52.5	
Lindsey	77.5	69.3
Lucas	80.5	57.0
Maria	90.5	51.5
Mary	86.0	56.0
Meaghan	91.5	85.0
Melissa	82.0	64.5
Melissa	89.0	85.0
Michael	50.0	40.5
Nathan	94.5	85.0
Nicholus	85.5	63.0
Rachel	79.0	71.5
Rachel	90.0	56.0
Rebecca	86.0	80.0
Renee	86.5	54.5
Robin	82.0	33.5
Sandi	78.0	48.5
Sarah	88.0	58.5
Serron	80.0	51.0
Shannon	86.5	46.0
Stefanie	88.5	68.0
Stefanie	83.5	75.5
Taylor	85.0	63.5
Thomas	81.0	49.0
Todd	85.5	86.0
Vanessa	85.0	59.5

<b>Descriptive Statistics</b>		
Count	69	67
Average	81.8986	60.0358
Standard Deviation	12.2254	14.9914
Minimum	25	28
Maximum	97	99
Median	85	59.5
Mode	79	56

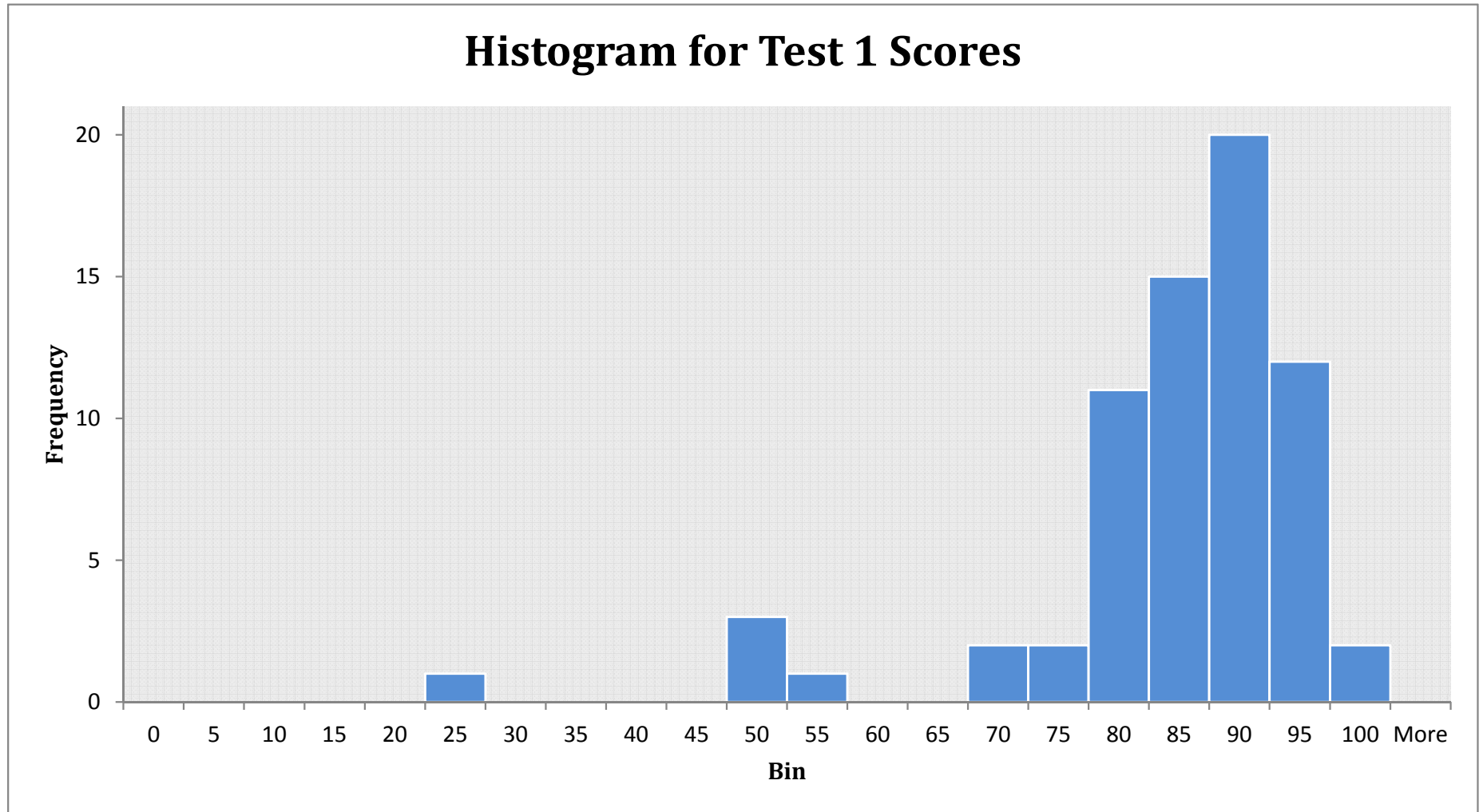


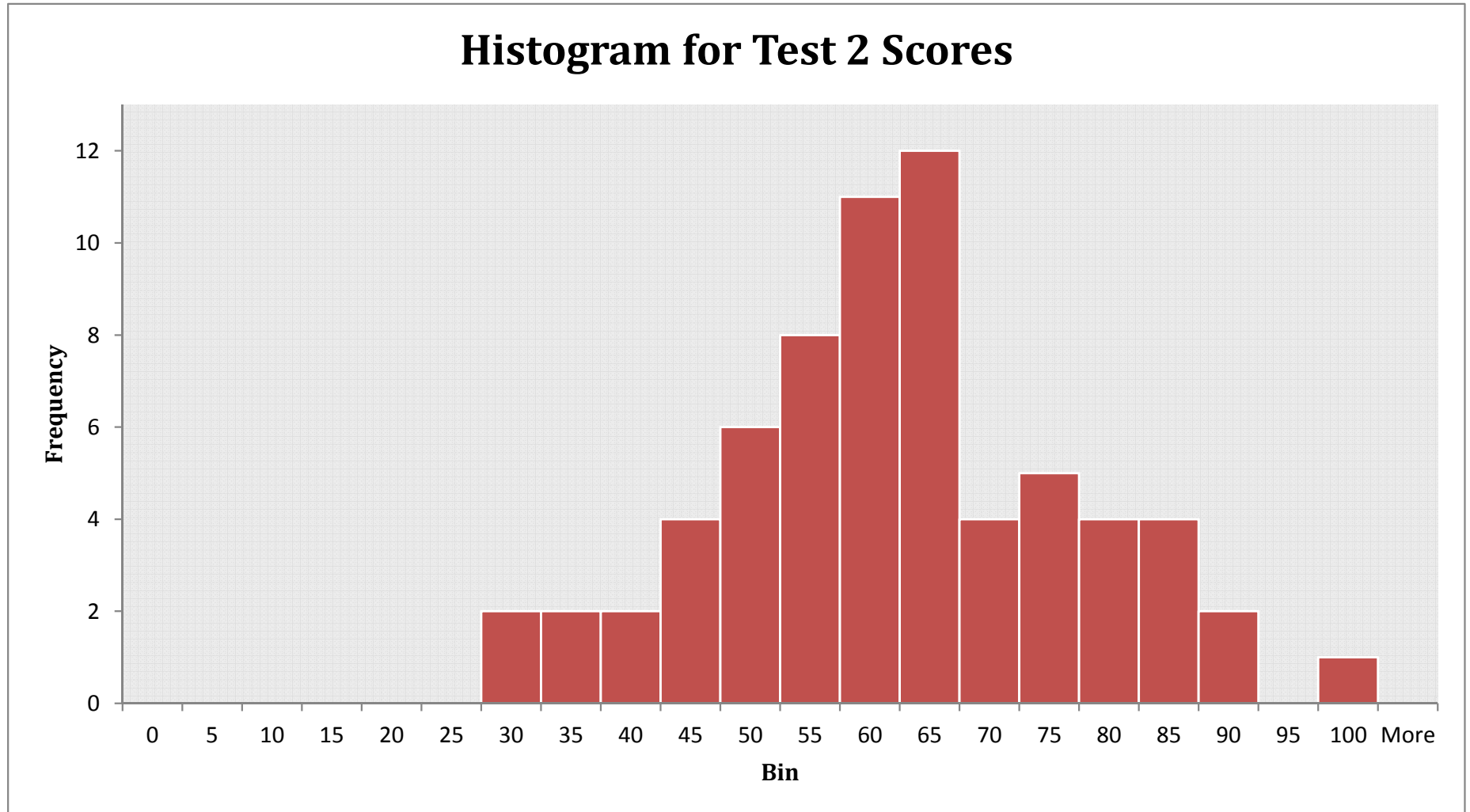
Additional Descriptive Statistics			
	Test 1	Test 2	Interpretation
Sample Variance	149.460145	224.741425	Variance is also equal to $\sigma$ .
Kurtosis	7.43209031	-0.0121897	Kurtosis measures "peakness" of a distribution. For an ideal normal distribution, Kurtosis is 0.
Skewness	-2.4278998	0.12679381	Test 1 has a negative skew, which means the left tail of the distribution is longer. The bulk of the distribution is concentrated on the right of the figure and there are relatively few low values. Test 2 has a positive skew (although small), which means the right tail of the distribution is longer. The bulk of the distribution is concentrated on the left of the figure and there are relatively few high values.
Range	72.0	71.0	
Sum	5651.0	4022.4	
Student's T Confidence Interval (95.0%) ( $\pm$ )	2.93685919	3.6566845	We are 95% confident that the average values for the test score distribution will fall between 78.96169 and 84.8354 for test 1 and between 56.37914 and 63.6925 for test 2.

<b>t-Test: Two-Sample Assuming Unequal Variances</b>				
$H_0: \mu_1 = \mu_2$		Test 1	Test 2	
$H_A: \mu_1 \neq \mu_2$	Mean	81.8985507	60.0358	
	Variance	149.460145	224.741	
	Observations	69	67	
	Hyp. Diff.	0		
	D.F.	127		
	t Stat	9.305026		P(T<=t) 5.06E-16
	t Critical	1.97882		
<b>Conclusion: Reject <math>H_0</math>: There is enough statistical evidence to conclude that the average score for test 1 differs from the average score for test 2.</b>				

<b>F-Test Two-Sample for Variances</b>				
$H_0: \sigma_1 = \sigma_2$		Test 1	Test 2	
$H_A: \sigma_1 \neq \sigma_2$	Mean	81.8985507	60.0358	
	Variance	149.460145	224.741	
	Observations	69	67	
	D.F.	68	66	
	F Stat	0.665032		P(F<=f) 0.04843
	F Critical	0.667573		
<b>Conclusion: Accept <math>H_0</math>: There is not enough statistical evidence to conclude that the variance of scores for test 1 differs from the variance of scores for test 2.</b>				

<b>Histogram Data</b>				
<i>Defined Bin</i>	<i>Test 1</i>		<i>Test 2</i>	
	<i>Bin</i>	<i>Frequency</i>	<i>Bin</i>	<i>Frequency</i>
0	0	0	0	0
5	5	0	5	0
10	10	0	10	0
15	15	0	15	0
20	20	0	20	0
25	25	1	25	0
30	30	0	30	2
35	35	0	35	2
40	40	0	40	2
45	45	0	45	4
50	50	3	50	6
55	55	1	55	8
60	60	0	60	11
65	65	0	65	12
70	70	2	70	4
75	75	2	75	5
80	80	11	80	4
85	85	15	85	4
90	90	20	90	2
95	95	12	95	0
100	100	2	100	1
	More	0	More	0





<b>Score Distribution Data</b>		
X	Test 1	Test 2
0	5.8703E-12	8.7611E-06
1	1.0120E-11	1.1418E-05
2	1.7330E-11	1.4816E-05
3	2.9479E-11	1.9138E-05
4	4.9810E-11	2.4613E-05
5	8.3603E-11	3.1512E-05
6	1.3939E-10	4.0166E-05
7	2.3084E-10	5.0970E-05
8	3.7974E-10	6.4393E-05
9	6.2054E-10	8.0989E-05
10	1.0073E-09	1.0141E-04
11	1.6241E-09	1.2642E-04
12	2.6012E-09	1.5689E-04
13	4.1383E-09	1.9385E-04
14	6.5399E-09	2.3844E-04
15	1.0266E-08	2.9200E-04
16	1.6009E-08	3.5599E-04
17	2.4796E-08	4.3209E-04
18	3.8152E-08	5.2212E-04
19	5.8309E-08	6.2810E-04
20	8.8522E-08	7.5225E-04
21	1.3349E-07	8.9694E-04
22	1.9997E-07	1.0647E-03
23	2.9755E-07	1.2582E-03
24	4.3980E-07	1.4804E-03
25	6.4571E-07	1.7340E-03
26	9.4171E-07	2.0220E-03
27	1.3642E-06	2.3474E-03
28	1.9632E-06	2.7130E-03
29	2.8062E-06	3.1217E-03
30	3.9846E-06	3.5760E-03
31	5.6200E-06	4.0783E-03
32	7.8737E-06	4.6304E-03
33	1.0958E-05	5.2340E-03
34	1.5148E-05	5.8899E-03
35	2.0801E-05	6.5987E-03
36	2.8373E-05	7.3599E-03
37	3.8443E-05	8.1724E-03
38	5.1741E-05	9.0344E-03
39	6.9173E-05	9.9430E-03
40	9.1862E-05	1.0894E-02
41	1.2118E-04	1.1884E-02
42	1.5879E-04	1.2905E-02
43	2.0668E-04	1.3953E-02
44	2.6723E-04	1.5018E-02



45	3.4320E-04	1.6093E-02
46	4.3784E-04	1.7168E-02
47	5.5485E-04	1.8234E-02
48	6.9844E-04	1.9280E-02
49	8.7333E-04	2.0295E-02
50	1.0847E-03	2.1269E-02
51	1.3383E-03	2.2191E-02
52	1.6402E-03	2.3050E-02
53	1.9967E-03	2.3836E-02
54	2.4145E-03	2.4540E-02
55	2.9003E-03	2.5152E-02
56	3.4606E-03	2.5664E-02
57	4.1016E-03	2.6071E-02
58	4.8289E-03	2.6367E-02
59	5.6473E-03	2.6548E-02
60	6.5603E-03	2.6611E-02
61	7.5701E-03	2.6556E-02
62	8.6772E-03	2.6384E-02
63	9.8797E-03	2.6096E-02
64	1.1174E-02	2.5697E-02
65	1.2553E-02	2.5192E-02
66	1.4009E-02	2.4587E-02
67	1.5529E-02	2.3890E-02
68	1.7100E-02	2.3109E-02
69	1.8704E-02	2.2255E-02
70	2.0321E-02	2.1337E-02
71	2.1932E-02	2.0367E-02
72	2.3512E-02	1.9354E-02
73	2.5038E-02	1.8310E-02
74	2.6485E-02	1.7245E-02
75	2.7829E-02	1.6170E-02
76	2.9047E-02	1.5095E-02
77	3.0115E-02	1.4028E-02
78	3.1015E-02	1.2980E-02
79	3.1728E-02	1.1956E-02
80	3.2241E-02	1.0964E-02
81	3.2544E-02	1.0010E-02
82	3.2631E-02	9.0980E-03
83	3.2500E-02	8.2326E-03
84	3.2154E-02	7.4164E-03
85	3.1599E-02	6.6515E-03
86	3.0847E-02	5.9389E-03
87	2.9911E-02	5.2792E-03
88	2.8811E-02	4.6719E-03
89	2.7566E-02	4.1162E-03
90	2.6199E-02	3.6104E-03
91	2.4734E-02	3.1527E-03

92	2.3195E-02	2.7408E-03
93	2.1607E-02	2.3722E-03
94	1.9993E-02	2.0440E-03
95	1.8377E-02	1.7534E-03
96	1.6778E-02	1.4974E-03
97	1.5216E-02	1.2732E-03
98	1.3708E-02	1.0777E-03
99	1.2267E-02	9.0816E-04
100	1.0904E-02	7.6191E-04

