

MASTER

COMPILATION OF ELASTIC SCATTERING DATA

Geoffrey C. Fox and C. Quigg

January 1970

Lawrence Radiation Laboratory
University of California
Berkeley, California 94720

Printed in the U.S.A. at Lawrence Radiation Laboratory, Berkeley, and in Europe at CERN, Geneva.

DISTRIBUTION OF THIS DOCUMENT IS UNLIMITED

DISCLAIMER

This report was prepared as an account of work sponsored by an agency of the United States Government. Neither the United States Government nor any agency Thereof, nor any of their employees, makes any warranty, express or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights. Reference herein to any specific commercial product, process, or service by trade name, trademark, manufacturer, or otherwise does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government or any agency thereof. The views and opinions of authors expressed herein do not necessarily state or reflect those of the United States Government or any agency thereof.

DISCLAIMER

Portions of this document may be illegible in electronic image products. Images are produced from the best available original document.

PAGES i to ii
WERE INTENTIONALLY
LEFT BLANK

COMPILATION OF ELASTIC SCATTERING DATA*

Geoffrey C. Fox

Cavendish Laboratory, University of Cambridge
Cambridge, England

and

C. Quigg

Lawrence Radiation Laboratory, University of California
Berkeley, California 94720

ABSTRACT

We present data for elastic scattering of π^+ , π^- , K^+ , K^- , p , and \bar{p} on protons in figures and tables.

This report was prepared as an account of work sponsored by the United States Government. Neither the United States nor the United States Atomic Energy Commission, nor any of their employees, nor any of their contractors, subcontractors, or their employees, makes any warranty, express or implied, or assumes any legal liability or responsibility for the accuracy, completeness or usefulness of any information, apparatus, product or process disclosed, or represents that its use would not infringe privately owned rights.

* This work was supported in part by the U.S. Atomic Energy Commission.

This document contains high energy elastic scattering data which have been of interest to us in the study of elementary particle collisions. It is produced with the blessing, but without the guarantee, of the Particle Data Group, who view it as an interim measure, to serve until their more systematic collections appear. We can promise neither completeness nor perfect accuracy. On the other hand we have accumulated these data for our own use in the past few years, with the care one reserves for personal treasures.

Our figures give differential cross sections, total cross sections, and "effective alphas", or effective Regge trajectories: α_{eff} . These last are derived from the data by (interpolating in t , if necessary and) fitting $d\sigma/dt$ from all energies s , at each particular value of t , to the form

$$\frac{d\sigma}{dt}(s; t \text{ fixed}) = f(t) \left(\frac{s}{s_0}\right)^{2\alpha_{\text{eff}}(t)-2}$$

with $s_0 = 1 \text{ (GeV/c)}^2$.

The tables give differential cross sections and total cross sections in $\text{mb}/(\text{GeV})^2$ and mb , respectively; polarization, and (real part of amplitude)/(imaginary part of amplitude).

ACKNOWLEDGMENT

We thank Professor Arthur Rosenfeld for suggesting this paper and Dr. LeRoy Price for technical assistance and advice. Dr. Donald Austin and Dr. William Greiman provided the figure of α_{eff} for $\bar{p}p$ scattering. We are grateful to the Thompson Chemistry Group at LRL for the use of their PDP-9 computer for editing, and to Elizabeth Quigg for help with that task.

FIGURE CAPTIONS

- Fig. 1. $d\sigma/dt$, π^+p elastic. Successive sets of data are spaced by one decade, and are identified by p_{lab} in GeV/c.
- Fig. 2. $d\sigma/dt$, π^-p elastic.
- Fig. 3. $d\sigma/dt$, K^-p elastic.
- Fig. 4. $d\sigma/dt$, K^+p elastic.
- Fig. 5. $d\sigma/dt$, pp elastic.
- Fig. 6. $d\sigma/dt$, $\bar{p}p$ elastic.
- Fig. 7. Total $\pi^\pm p$ cross sections.
- Fig. 8. Total $K^\pm p$ cross sections.
- Fig. 9. Total pp , $\bar{p}p$ cross sections.
- Fig. 10. α_{eff} , $\pi^\pm p$ elastic.
- Fig. 11. α_{eff} , $K^\pm p$ elastic.
- Fig. 12. α_{eff} , pp elastic.
- Fig. 13. α_{eff} , $\bar{p}p$ elastic.

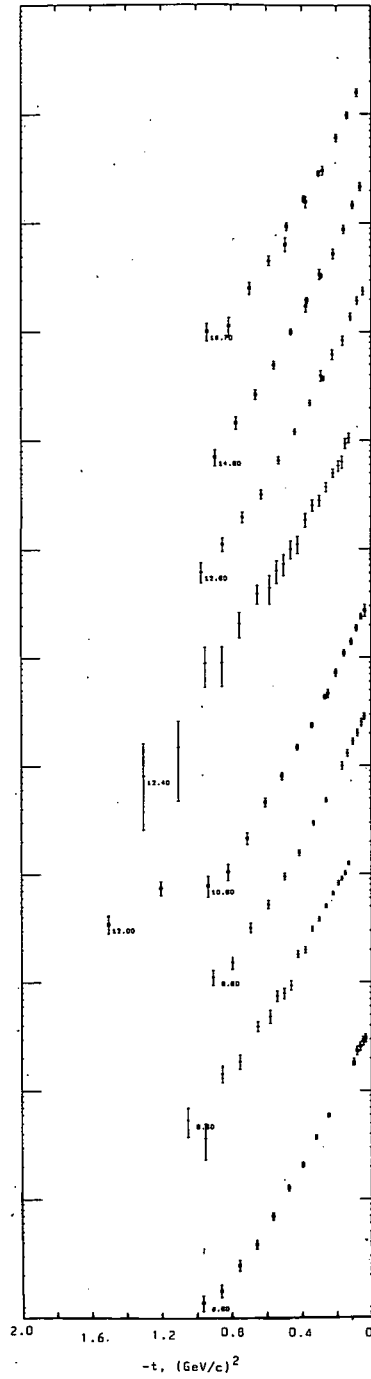


FIGURE 1

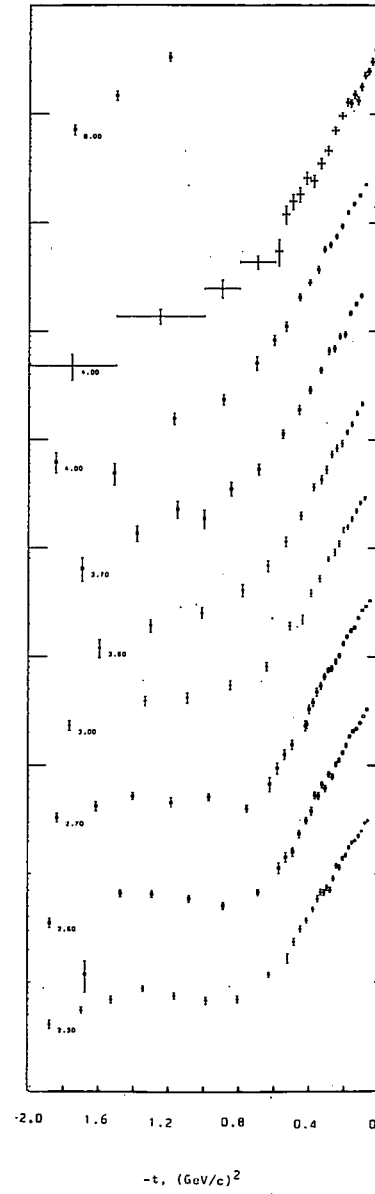
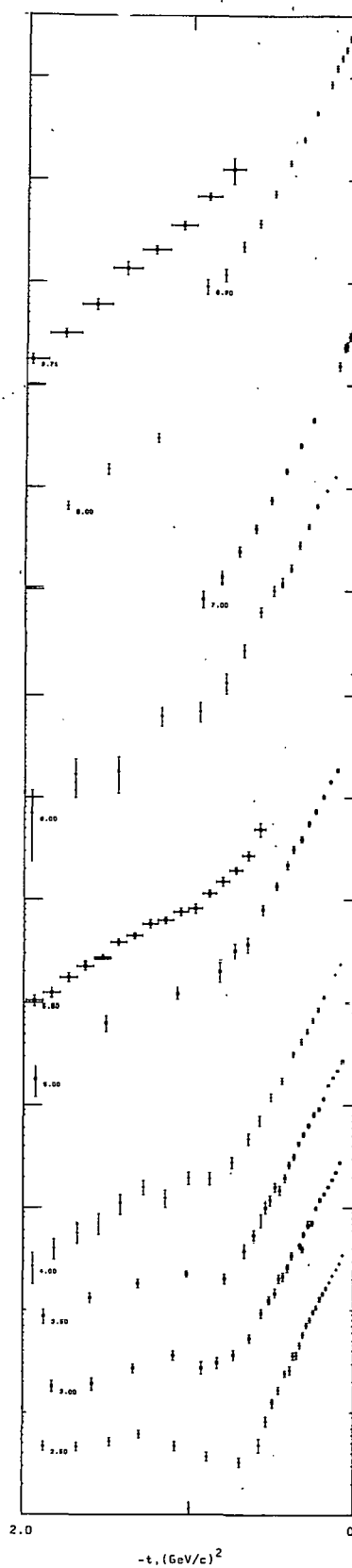
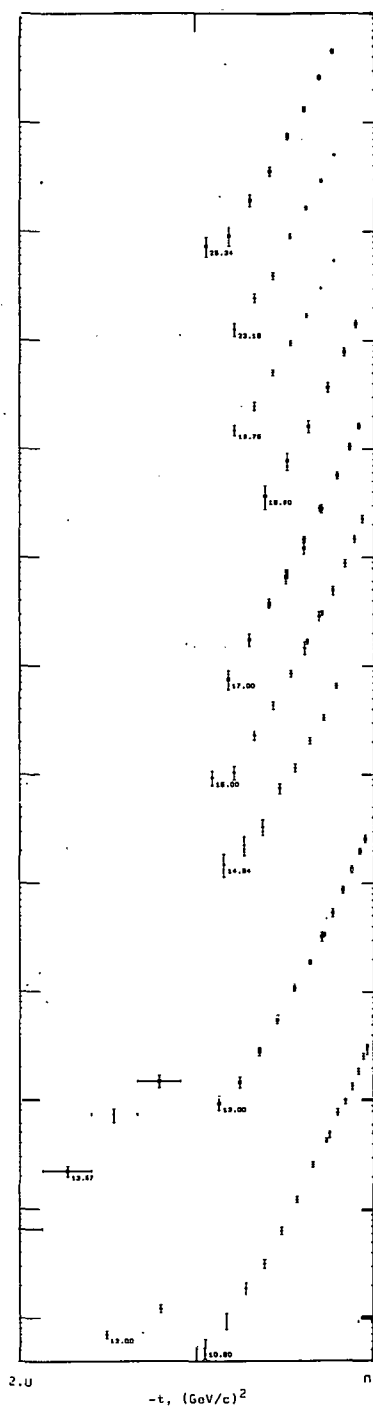
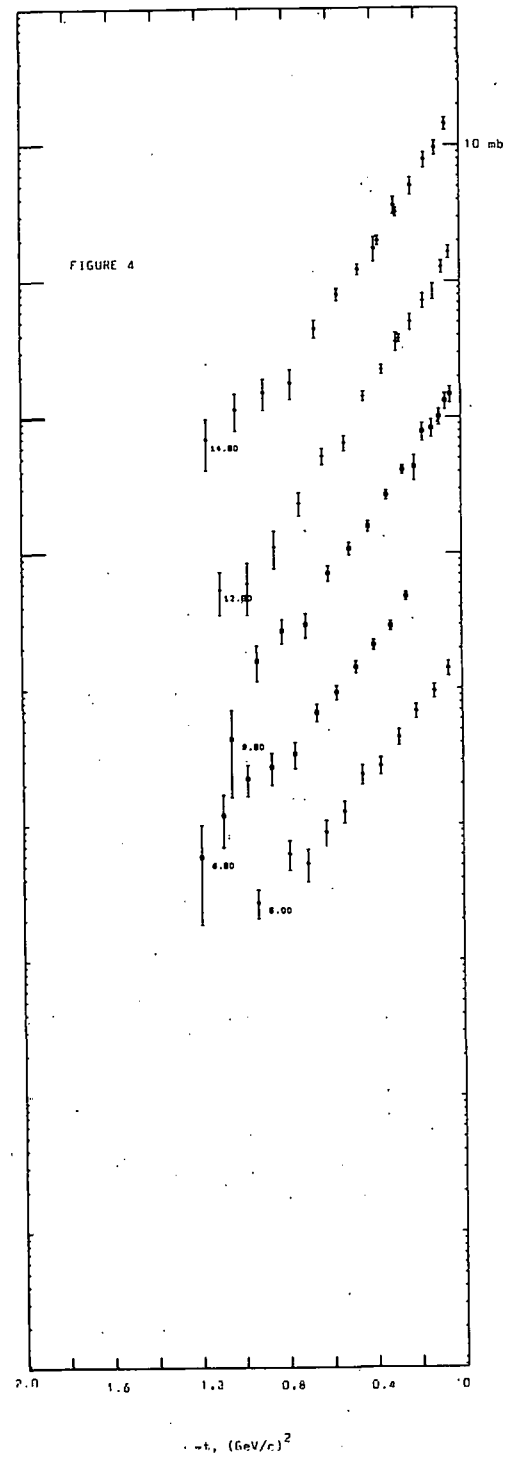
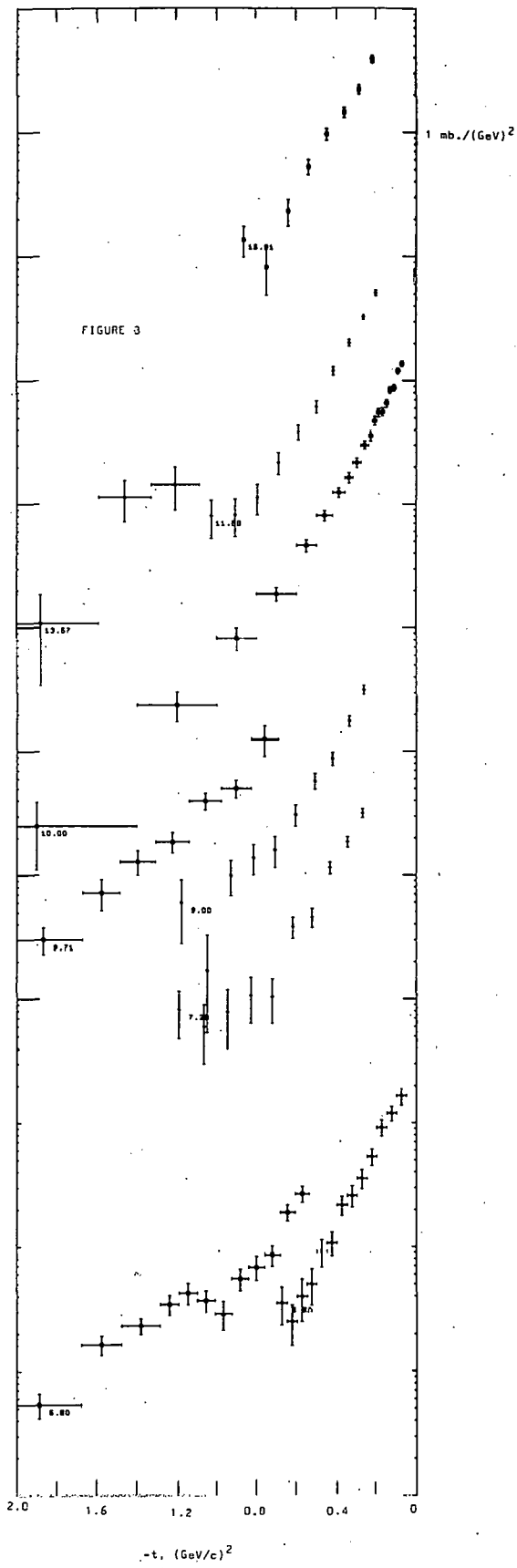


FIGURE 2





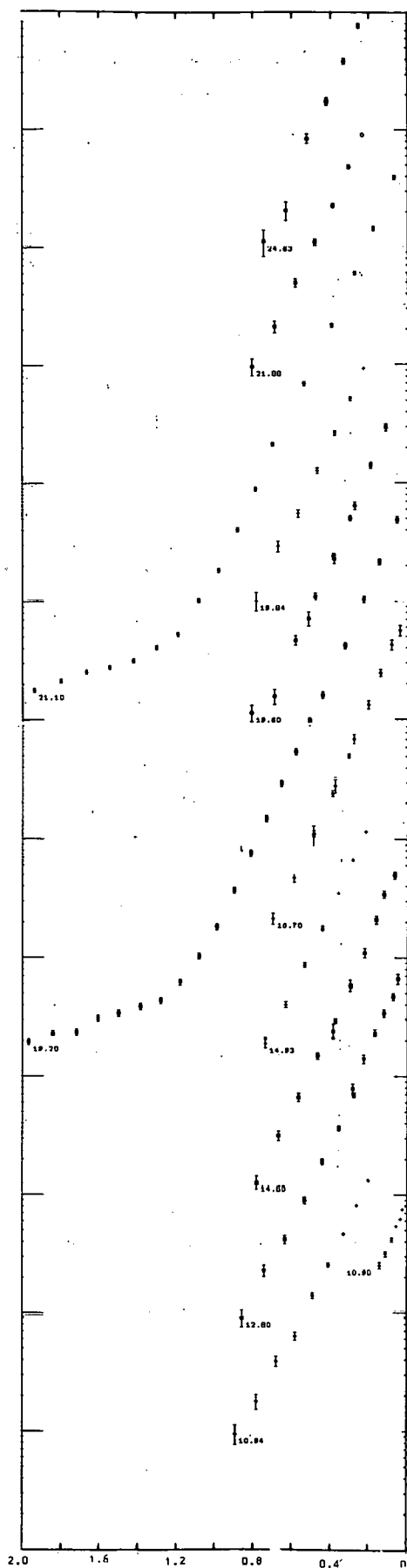
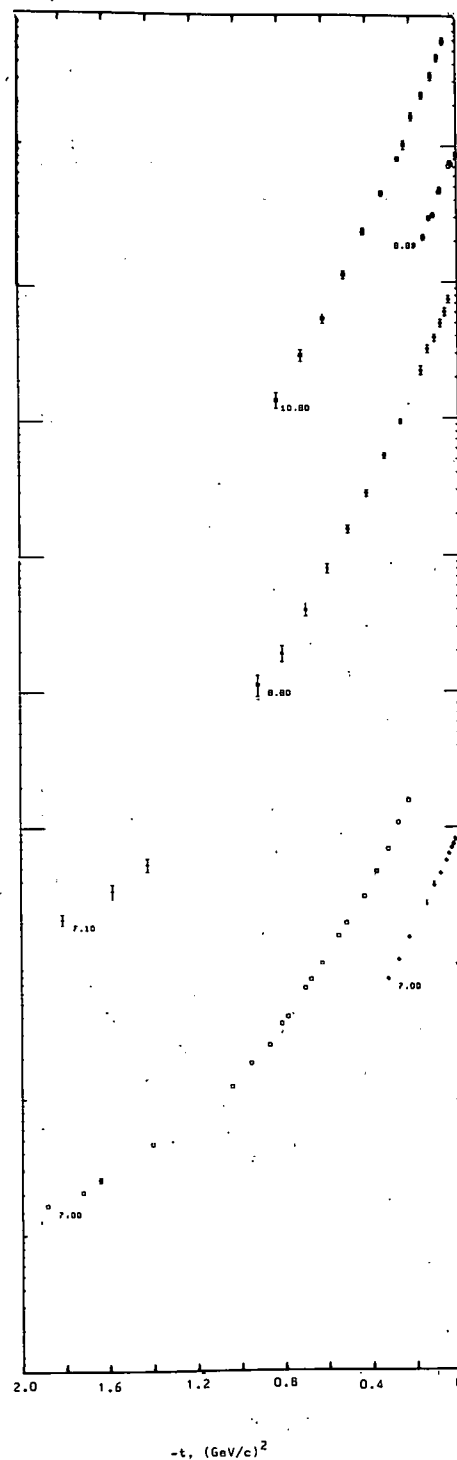


FIGURE 5



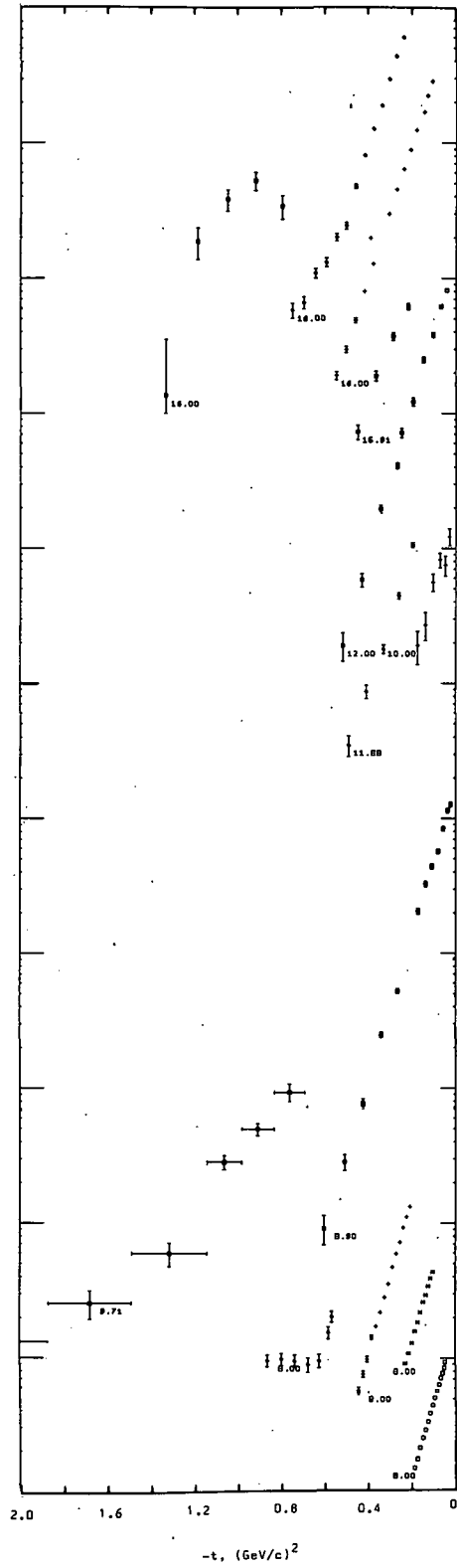


FIGURE 6

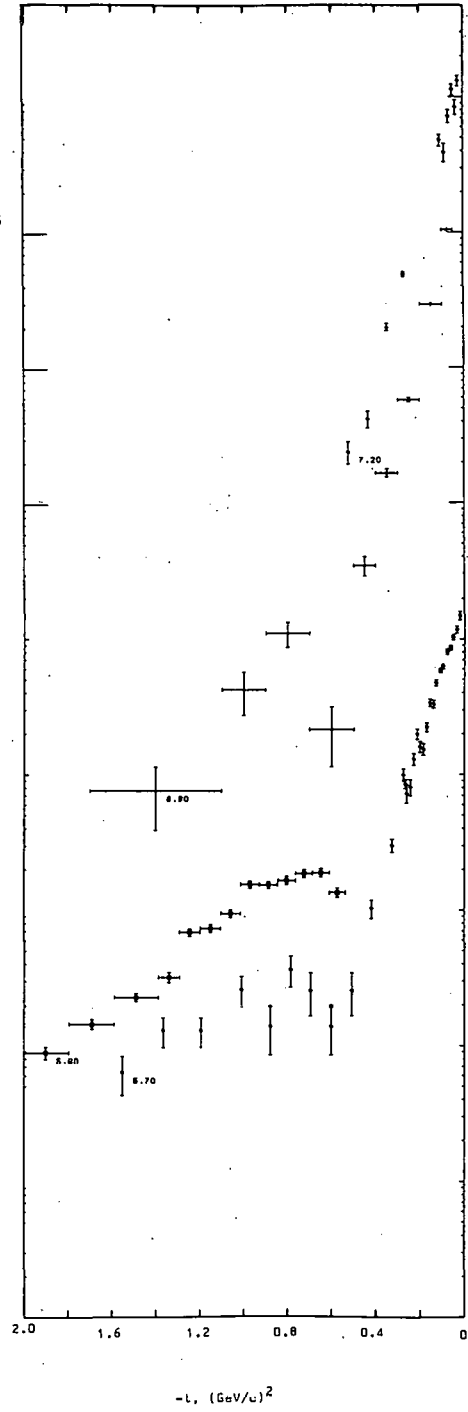


FIGURE 7

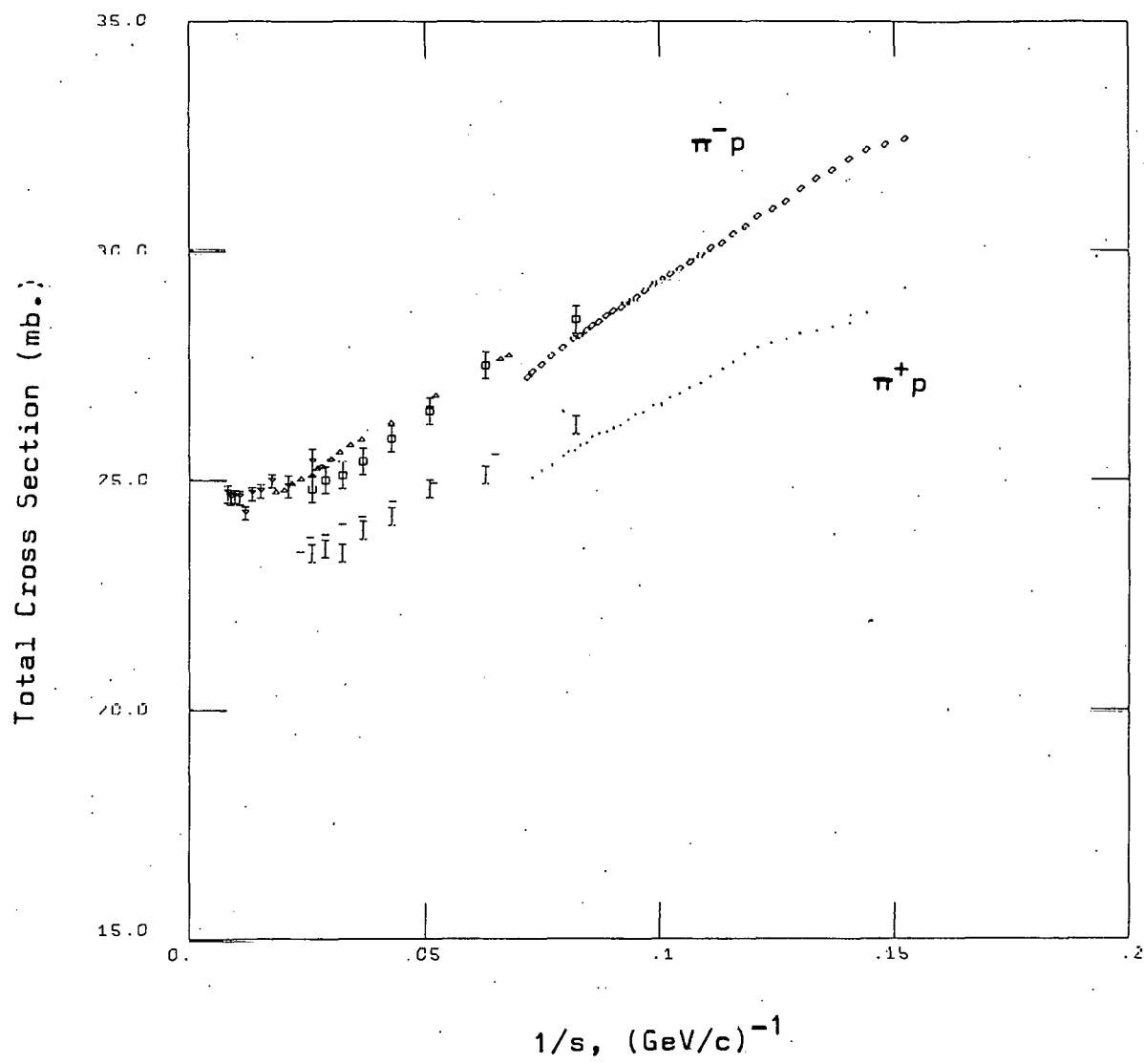


FIGURE 8

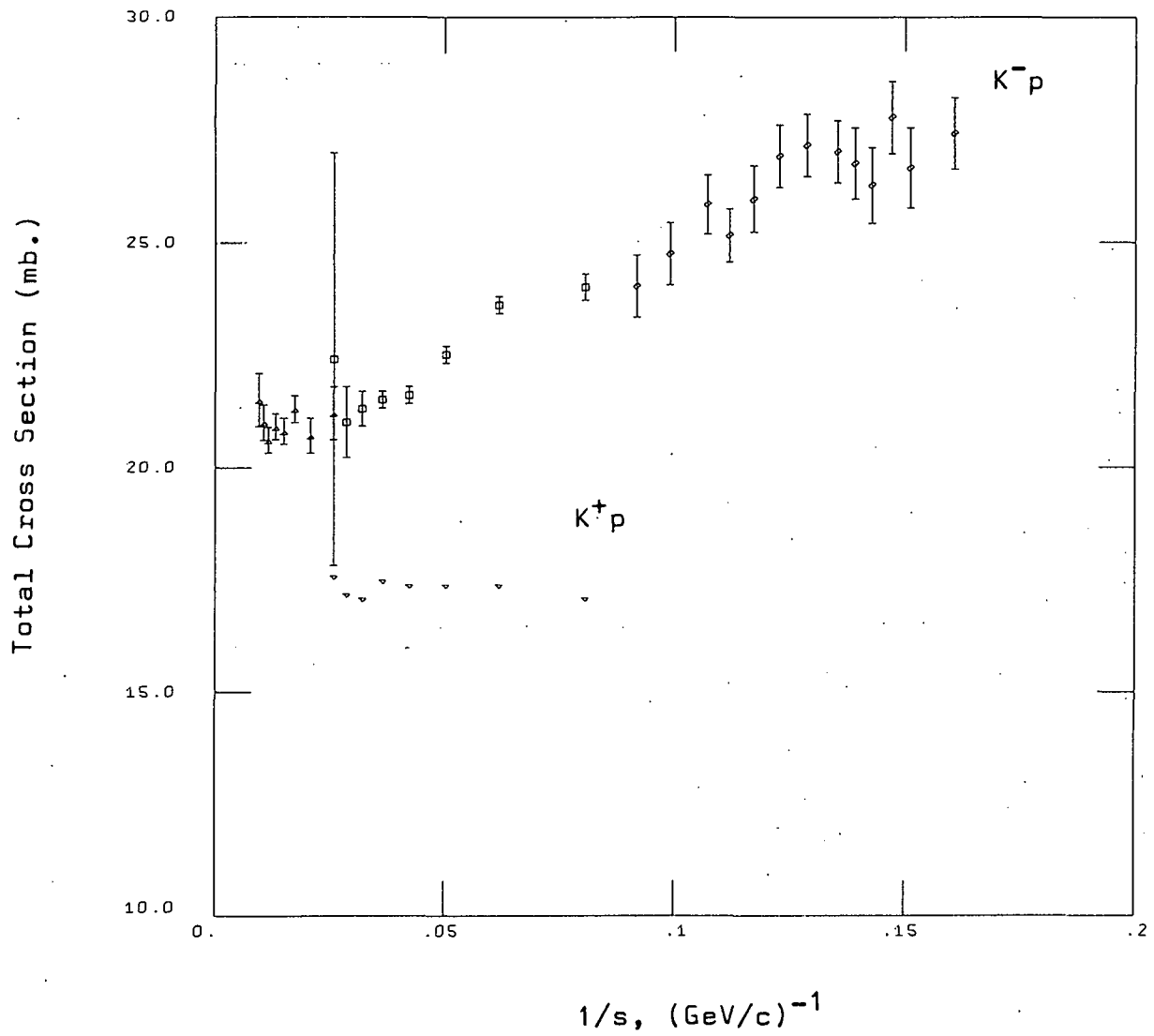
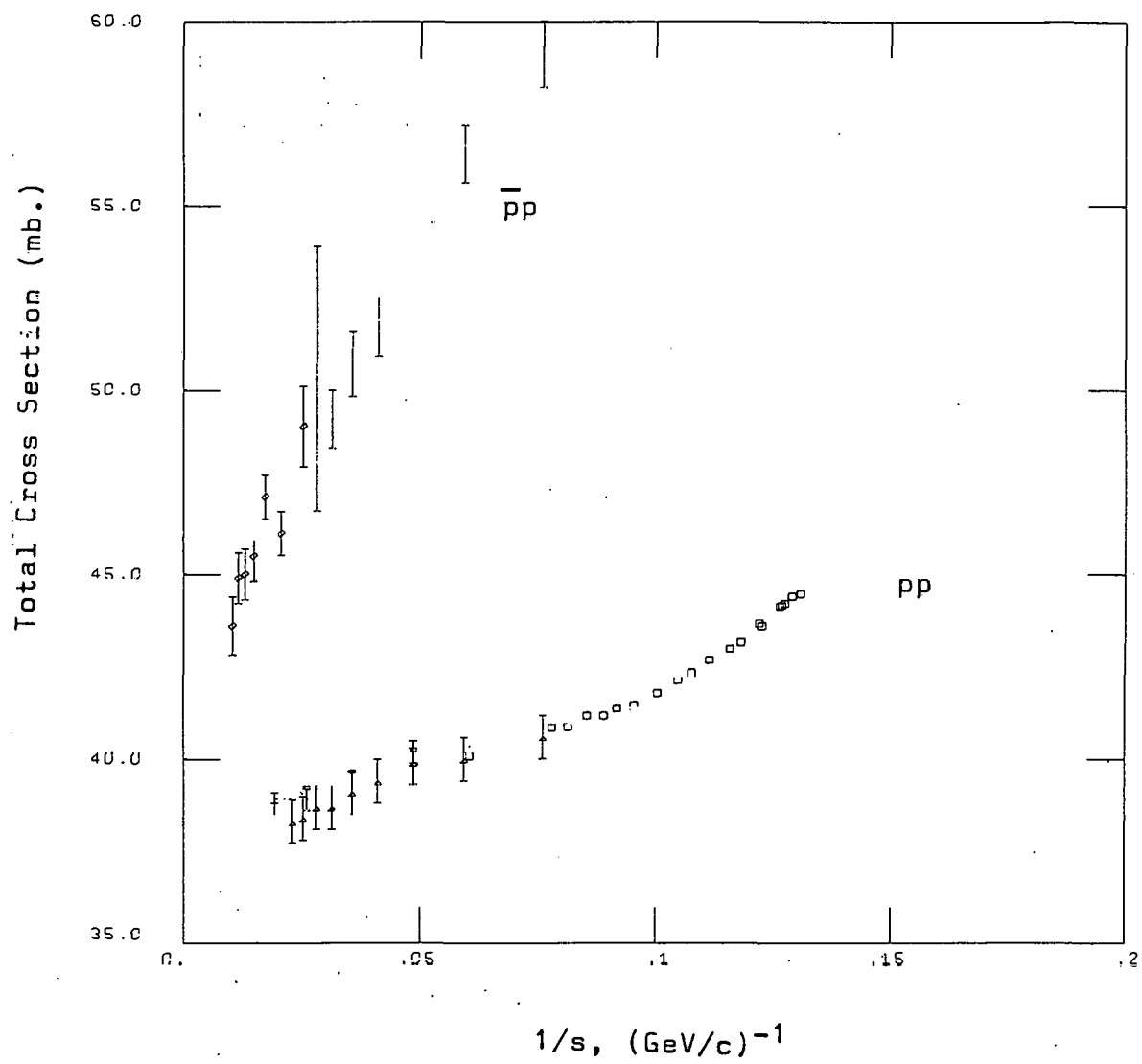


FIGURE 9



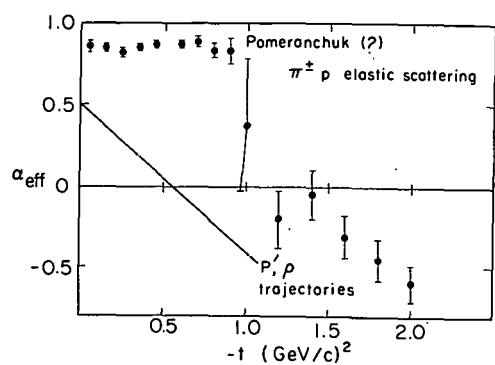


FIGURE 10

XBL699-3692

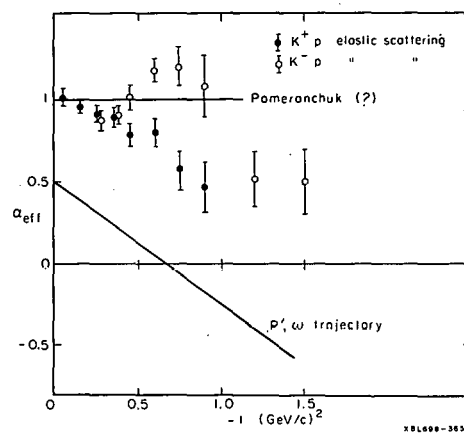


FIGURE 11

XBL699-3654

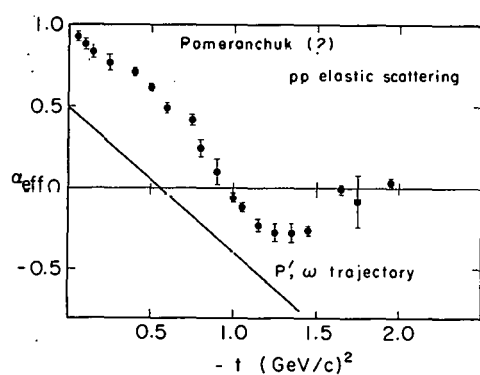


FIGURE 12

XBL699-3695

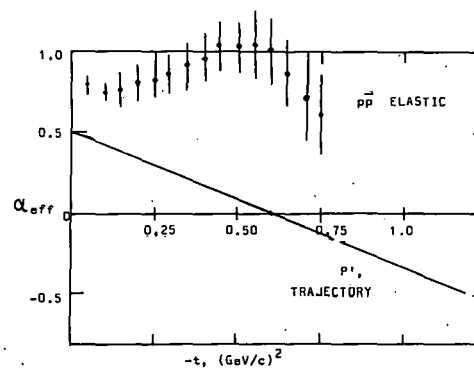


FIGURE 13

***** P1 - P FORWARD ELASTIC SCATTERING

C P1- P ELASTIC
C COFFIN ET AL. MICHIGAN GROUP ..SPARK AT ARGONNE ZGS P.R.159,1171
C FIVE PERCENT EXTRA NORM ERROR

2.5 GEV/C, PLAB

T	DS/DT	ERROR
.069	34.46	.9
.088	28.42	.83
.108	24.87	.74
.128	21.67	.7
.147	18.6	.64
.167	16.27	.58
.187	14.42	.58
.206	12.95	.54
.226	10.61	.48
.246	9.56	.45
.265	8.02	.42
.285	7.1	.39
.305	5.75	.35
.325	4.54	.31
.344	3.64	.27
.364	3.58	.27
.383	2.59	.23
.413	2.41	.16
.452	1.66	.13
.491	1.24	.12
.531	.825	.089
.57	.48	.074
.688	.329	.035
.884	.374	.038
1.08	.473	.048
1.29	.62	.054
1.47	.521	.048
1.67	.467	.045
1.87	.47	.048
2.06	.302	.035
2.26	.16	.024
2.46	.053	.014
2.65	.029	.012
2.85	.014	.005
3.05	.025	.008
3.24	.031	.008
3.44	.091	.011
3.64	.138	.018
3.77	.162	.029
3.86	.106	.019

-3.
C P1- W ELASTIC

C COFFIN ET AL. MICHIGAN GROUP ..SPARK AT ARGONNE ZGS P.R.159,1171
C FIVE PERCENT EXTRA NORM ERROR

3.0 GEV/C, PLAB

T	DS/DT	ERROR
.005	27.5	.7
.109	22.1	.6
.133	18.7	.6
.157	16.	.5
.182	13.6	.5
.206	11.9	.5
.23	9.9	.4
.254	7.05	.36
.278	6.71	.36
.303	5.5	.31

T	DS/DT	ERROR
.327	4.29	.28
.311	3.94	.25
.375	3.4	.25
.4	2.98	.22
.425	2.13	.2
.45	2.03	.19
.474	1.46	.16
.51	1.26	.11
.554	.93	.09
.63	.53	.05
.727	.366	.04
.824	.305	.038
.921	.274	.037
1.09	.262	.036
1.33	.272	.028
1.58	.191	.024
1.82	.181	.023
2.06	.114	.018
2.3	.088	.013
2.55	.031	.008
2.79	.01	.005
3.04	.005	.003
3.28	.034	.008
3.52	.039	.008
3.76	.023	.008
4.01	.029	.008
4.24	.034	.008
4.48	.031	.008
4.72	.026	.008

-3.
C P1- P ELASTIC

C COFFIN ET AL. MICHIGAN GROUP ..SPARK AT ARGONNE ZGS P.R.159,1171
C FIVE PERCENT EXTRA NORM ERROR

3.5 GEV/C, PLAB

T	DS/DT	ERROR
.072	27.19	.66
.101	21.77	.58
.13	18.58	.53
.159	15.59	.48
.187	11.58	.41
.216	8.21	.37
.245	6.05	.34
.274	6.37	.3
.303	5.18	.27
.332	4.27	.25
.361	3.13	.21
.39	2.61	.19
.415	1.95	.17
.447	1.48	.15
.476	1.59	.15
.505	1.18	.13
.534	.996	.12
.563	.75	.106
.606	.539	.063
.664	.377	.055
.779	.204	.022
1.01	.225	.015
1.3	.182	.018
1.59	.132	.015
1.87	.087	.014
2.16	.037	.008
2.45	.0053	.0036

T	DS/DT	ERROR
2.74	.002	.002
3.03	.002	.002
3.32	.0056	.0031
3.61	.0092	.0039
3.9	.016	.005
4.18	.0047	.0028
4.47	.0005	.0005
4.76	.002	.002
5.05	.002	.002
5.34	.0044	.0026
5.61	.0074	.0035

-3.

C P1- P ELASTIC

C COFFIN ET AL. MICHIGAN GROUP ..SPARK AT ARGONNE ZGS P.R.159,1171
C FIVE PERCENT EXTRA NORM ERROR

4.0 GEV/C, PLAB

T	DS/DT	ERROR
.084	23.47	.59
.117	18.72	.56
.151	14.52	.48
.184	11.27	.43
.218	8.54	.38
.251	6.73	.33
.285	5.23	.29
.318	4.18	.26
.368	3.13	.16
.435	1.74	.12
.503	1.2	.1
.57	.71	.08
.637	.47	.06
.737	.277	.034
.871	.193	.027
1.	.195	.027
1.14	.124	.024
1.27	.158	.025
1.41	.11	.024
1.54	.071	.016
1.67	.057	.012
1.81	.04	.009
1.94	.027	.009
2.14	.0098	.004
2.51	.0039	.004

T1 T2 DS/DT ERROR

2.68 6.03 .001 .001

T1 DS/DT ERROR

6.2 .002 .0014

6.21 .011 .004

-3.

C P1- P ELASTIC

C BRIDGEMAN COUNTER EXPT..OREAR ET AL P.R.152,1162

C LARGE T

DS/DT IN MICROBARN . . .

4.0 GEV/C, PLAB

T	DS/DT	ERROR
6.486	22.90	5.1
6.686	31.3	8.8
6.895	25.2	8.8

-3.

C P1- P ELASTIC

C COFFIN ET AL. MICHIGAN GROUP ..SPARK AT ARGONNE ZGS P.R.159,1171

C FIVE PERCENT EXTRA NORM ERROR

5.0 GEV/C, PLAB

T	DS/DT	ERROR
.107	18.45	.608
.15	14.403	.518
.193	10.316	.443
.235	7.402	.377
.278	5.581	.323
.321	3.934	.27
.369	3.121	.242
.406	2.205	.204
.471	1.361	.113
.556	.798	.087
.649	.365	.059
.727	.518	.054
.813	.179	.043
1.07	.122	.015
1.498	.047	.011
1.925	.018	.006
2.353	.012	.005
4.706	.001	.001
7.487	.004	.002
8.322	.023	.008

-3.

C P1- P ELASTIC FORWARD GEOMETRY. ONE

C J.OREAR A.ASHMORE ET AL. CORNELL,BNL P.R.L. 21,387(68)

C PAPER SAYS 15PERCENT EXTRA ERROR

DS/DT IN MICROBARN

5.8 GEV/C, PLAB

I1	I2	DS/DT	ERROR
.537	.607	492.00000	73.30800
.607	.681	271.00000	28.72600
.681	.758	194.00000	13.96800
.758	.839	150.00000	15.00000
.839	.921	115.00000	9.20000
.921	1.008	82.20000	8.38400
1.008	1.097	76.40000	6.34120
1.097	1.188	62.90000	4.84330
1.188	1.281	58.20000	5.23800
1.281	1.377	44.40000	2.88600
1.377	1.474	38.40000	2.72640
1.474	1.573	27.00000	2.13300
1.573	1.675	22.50000	2.00250
1.674	1.776	17.40000	1.67040
1.775	1.878	12.40000	1.40120
1.879	1.983	10.40000	1.24800
1.982	2.087	6.95000	.56990
2.087	2.193	4.77000	.45315
2.193	2.299	3.86000	.42074
2.298	2.406	2.42000	.34848
2.405	2.513	1.08000	.23760
2.512	2.726	.52000	.14508

-3.

C P1- P ELASTIC FORWARD GEOMETRY. TWO

C J.OREAR A.ASHMORE ET AL. CORNELL,BNL P.R.L. 21,387(68)

C PAPER SAYS 15PERCENT EXTRA ERROR

DS/DT IN MICROBARN

5.9 GEV/C, PLAB

T1	T2	DS/DT	ERROR
2.332	2.387	1.88000	.55460
2.387	2.497	1.56000	.29328
2.496	2.661	.41400	.10143
2.661	2.826	.18100	.04688
2.826	2.936	.15300	.05034

2.936	3.100	.12900	.04528
3.100	3.263	.14600	.03504
3.263	3.425	.17800	.03892
3.425	3.587	.21000	.04190
3.587	3.745	.24500	.03710
3.745	3.953	.30500	.03355
3.953	4.157	.21100	.02954
4.157	4.357	.16500	.02557
4.357	4.553	.18500	.02793
4.553	4.743	.13500	.02079
4.743	4.930	.13500	.02173
4.930	5.154	.11500	.02070
5.154	5.370	.10400	.02132
5.370	5.579	.0691000	.0201772
5.579	5.779	.0892000	.0237272
5.779	5.971	.0795000	.0263940
5.970	6.154	.0646000	.0270028
6.154	6.364	.0702000	.0385398

-3-
C PI- P ELASTIC
C COFFIN ET AL. MICHIGAN GROUP ..SPARK AT ARGONNE ZGS P.R.159.1171
C FIVE PERCENT EXTRA NORM ERROR

6.0 GEV/C, PLAB			
T	DS/DT	ERROR	
.13	12.98	.39	
.182	9.52	.33	
.235	6.72	.28	
.286	4.25	.22	
.339	2.75	.18	
.391	1.67	.14	
.444	1.21	.12	
.495	1.	.11	
.574	.621	.083	
.678	.277	.041	
.782	.134	.03	
.939	.07	.015	
1.17	.063	.013	
1.43	.018	.007	
1.69	.017	.007	
1.95	.007	.0047	
7.0 GEV/C, PLAB			
T	DS/DT	ERROR	
3.65	7.56	.0005	.0005
10.12	.0035	.0024	

-3-
C PI- P ELASTIC
C LINDENBAUM P.R.L.11.425(63) 3 PERCENT RELATIVE ERROR AFTER ..APPROX.. .25
C 6 PERCENT NORM ERROR

7.0 GEV/C, PLAB			
T	DS/DT	ERROR	
.037	32.1	1.9	
.05	30.2	1.7	
.067	24.4	1.5	
.082	23.6	1.4	
.109	15.6	1.1	
.265	4.64	.22	
.34	2.61	.14	
.424	1.471	.092	
.511	.762	.06	
.605	.401	.036	
.705	.241	.027	
.812	.135	.019	

.924 .082 .015
-3-
C PI- P ELASTIC FORWARD GEOMETRY. TWO
C J.OREAR,A. ASHMORE ET AL. CORNELL,BNL P.R.L. 21.387(68)
C PAPER SAYS 15PERCENT EXTRA ERROR
DS/DT IN MICROBARN

7.88 GEV/C, PLAB			
T1	T2	DS/DT	ERROR
4.973	5.297	.0528000	.0131472
5.297	5.613	.0362000	.0101722
5.613	5.922	.0369000	.0101844
5.922	6.223	.0198000	.0074250
6.223	6.797	.0186000	.0045942
6.797	7.334	.0172000	.0049880
7.334	7.952	.0095400	.0033104
7.952	8.618	.0099600	.0034960
8.617	9.206	.0058900	.0030569
9.206	9.960	.0070300	.0027698
9.960	10.454	.0044300	.0035174

-3-
C PI- P ELASTIC
C BROOKHAVEN COUNTER EXPT..OREAR ET AL P.R.152,1162
C LARGE T

8.0 GEV/C, PLAB			
T	DS/DT	ERROR	
1.2	30.4	3.1	
1.5	15.1	1.8	
1.74	6.55	.58	
2.	2.71	.65	
2.25	.57	.08	
2.5	.2	.06	
2.72	.047	.019	
3.	.064	.019	
3.5	.104	.031	
4.	.056	.038	
5.	.083	.041	
6.	.03	.03	
14.053	2.88	.78	
14.1	3.25	.88	
14.133	2.13	.57	
14.154	4.99	1.34	
14.16	3.35	.9	

-3-
C PI- P .. ELASTIC
C CERN SPARK N.C.38,60(65)
C

8.5 GEV/C, PLAB			
T	DS/DT	ERROR	
.05	24.44	1.68	
.07	22.63	1.69	
.09	17.9	1.49	
.11	14.36	1.34	
.13	12.91	.32	
.15	10.94	.29	
.17	9.26	.27	
.19	8.01	.25	
.22	6.35	.16	
.26	4.72	.12	
.3	3.6	.11	
.34	2.615	.093	
.38	1.824	.078	

.42	1.397	.067
.46	1.16	.062
.5	.863	.053
.54	.605	.045
.58	.445	.038
.65	.341	.022
.75	.178	.016
.85	.096	.012
.95	.09	.012
1.05	.0437	.0086

-3-
C PI- P ELASTIC
C LINDENBAUM P.R.L.11.425(63) 3 PERCENT RELATIVE ERROR AFTER ..APPROX.. .25
C 6 PERCENT NORM ERROR

8.9 GEV/C, PLAB			
T	DS/DT	ERROR	
.039	29.52	.91	
.058	24.22	.8	
.083	18.77	.67	
.11	15.63	.54	
.139	12.52	.46	
.174	8.7	.39	
.261	4.55	.2	
.335	2.5	.13	
.417	1.462	.085	
.503	.738	.053	
.596	.38	.033	
.696	.227	.025	
.803	.119	.017	
.915	.092	.015	

-3-
C PI- P ELASTIC FORWARD GEOMETRY. ONE
C J. OREAR,A. ASHMORE ET AL. CORNELL,BNL P.L. 28.61(68)
C SYSTEMATIC ERROR INCL. EXTRA 5 PERCENT NORM

9.71 GEV/C, PLAB			
T1	T2	DS/DT	ERROR
.691	.829	128.00000	35.71200
.828	.977	69.20000	5.53600
.977	1.136	36.10000	3.24900
1.137	1.305	20.80000	1.87200
1.305	1.482	13.70000	1.98650
1.483	1.667	6.06000	.73326
1.667	1.861	3.13000	.29735
1.860	2.059	1.76000	.19360
2.059	2.265	.70500	.09094
2.264	2.475	.20900	.03595
2.476	2.692	.0709000	.0265875
2.692	2.912	.0247000	.0143507
2.911	3.134	.0258000	.0160992
3.135	3.361	.0556000	.0164020
3.361	3.705	.0529000	.0147591
3.706	4.052	.0455000	.0145600
4.052	4.518	.0266000	.0082726
4.518	4.984	.0160000	.0070880
4.984	5.446	.0249000	.0076692
5.446	6.351	.0172000	.0063296

-3-
C PI- P ELASTIC FORWARD GEOMETRY. TWO
C J. OREAR,A. ASHMORE ET AL. CORNELL,BNL P.L. 28.61(68)
C SYSTEMATIC ERROR INCL. EXTRA 5 PERCENT NORM
DS/DT IN MICROBARN

9.84 GEV/C, PLAB			
T1	T2	DS/DT	ERROR
5.862	6.773	.0081300	.0020244
6.772	7.638	.0055500	.0016761
7.638	8.834	.0021800	.0010115
8.834	9.899	.0024200	.0010430
9.898	11.117	.0036400	.0011320
11.118	12.131	.0012100	.0008954
12.131	13.583	.0009920	.0006031

-3-
C PI- P ELASTIC
C CERN BUBBLE 1706 EVENTS P.R.L. 10.413
C

10.0 GEV/C, PLAB			
T1	T2	DS/DT	ERROR
.02	.04	30.68	2.81
.04	.06	28.14	2.08
.06	.08	18.62	1.45
.08	.1	16.71	1.35
.1	.12	11.62	1.12
.12	.14	10.3	1.05
.14	.16	9.16	1.
.16	.18	7.52	.89
.18	.2	7.63	.91
.2	.22	6.59	.84
.22	.24	5.05	.74
.24	.28	3.87	.45
.28	.32	3.45	.43
.32	.36	2.41	.36
.36	.42	1.65	.24
.42	.5	1.22	.181
.5	.6	.534	.106
.6	.8	.162	.042
.8	1.	.0755	.028
1.	1.2	.068	.029
1.2	1.6	.02	.011

-3-
C PI- P ELASTIC
C LINDENBAUM P.R.L.11.425(63) 3 PERCENT RELATIVE ERROR AFTER ..APPROX.. .25
C 6 PERCENT NORM ERROR

10.8 GEV/C, PLAB			
T	DS/DT	ERROR	
.036	29.7	2.3	
.056	25.66	.84	
.085	18.66	.65	
.121	13.46	.52	
.16	9.47	.43	
.203	7.78	.37	
.249	5.	.29	
.266	4.31	.2	
.341	2.59	.14	
.428	1.236	.075	
.517	.636	.048	
.614	.316	.03	
.718	.189	.022	
.828	.095	.016	
.946	.053	.011	

-3-
C PI- P ELASTIC
C BROOKHAVEN COUNTER EXPT..OREAR ET AL P.R.152,1162
C LARGE T
DS/DT IN MICROBARN


```

**
29.744 .01
4.53
**
29.6 .01
4.63
**
29.487 .01
4.73
**
29.36 .01
4.83
**
29.237 .01
4.93
**
29.12 .01
5.03
**
28.988 .01
5.13
**
28.881 .01
5.23
**
28.766 .01
5.33
**
28.68 .01
5.44
**
28.586 .01
5.54
**
28.45 .025
5.64
**
28.355 .025
5.74
**
28.256 .025
5.84
**
28.149 .025
5.94
**
28.072 .025
6.04
**
27.884 .025
6.24
**
27.704 .025
6.44
**
27.518 .025
6.64
**
27.356 .025
6.84
**
27.236 .025

```

```

6.94
-3.
C PI- P ELASTIC
C GALBRAITH ... READ BROOKHAVEN P.R.138,913
C

```

```

**
28.5 .3
6.
17 223
**
27.5 .3
8.
**
20.5 .3
10.
**
25.9 .3
12.
**
25.4 .3
14.
**
25.1 .3
16.
**
25. .3
18.
**
24.8 .3
20.
-3.
C PI- P ELASTIC
C LINDENBAUM P.R.L. 19,330(E622) (67)
C
**
27.755 .089
7.38
**
27.671 .088
7.6
**
26.871 .084
9.78
**
26.273 .083
12.01
**
25.915 .081
14.13
**
25.799 .082
15.21
**
25.642 .081
16.31
**
25.509 .081
17.32
**
25.327 .084
18.36
**

```

```

25.344 .081
18.68
**
25.308 .081
19.22
**
25.15 .082
20.17
**
25.064 .079
22.09
**
24.955 .082
24.27
**
24.822 .079
26.19
**
24.774 .083
28.68
-3.

```

```

C PI- P TIAL CROSS SECTION . . .
C IHEP-CERN COLLABORATION, SERPUKHOV, OCTOBER 1969
C NOW PUB. IN PL 308 . . ADDITIONAL SYSTEMATIC ERROR AT LEAST 1
**

```

```

25.38 0.300
20.
**
24.85 0.250
25.
**
24.97 0.150
30.
**
24.75 0.150
35.
**
24.70 0.150
40.
**
24.27 0.150
45.
**
24.62 0.150
50.
**
24.64 0.150
55.
**
24.60 0.150
60.
**
24.69 0.200
65.
-4.

```

```

$$$$PI- P ELASTIC REAL/IMAGINARY AT T=0
C PI- P ELASTIC
C NOMOFILOV ET AL SOLOVIEV METHOD
C RE/IM ONLY
FORMAT IS RE/IM ERROR, PLAB ON FOLLOWING LINE

```

```

-12 .07

```

```

3.40

```

```

-17 .09
6.13
-3.

```

```

C PI- P ELASTIC
C LINDENBAUM P.R.L.19,193(67)
C RE/IM .02 SCALE EXTRA ERROR

```

```

-149 .021
7.89
-124 .017
9.84
-167 .02
9.89
-137 .017
11.89
-131 .025
14.16
-143 .018
15.99
-144 .022
16.
-112 .024
18.19
-117 .025
20.15
-132 .017
20.38
-123 .026
22.13
-125 .027
24.24
-128 .026
26.23
-4.

```

```

$$$$PI- P ELASTIC POLARIZATION . . . . .
C PI- P ELASTIC POLARIZATION
C ESTERLING ET AL CHICAGO ILLINOIS VIENNA 68
C EXTRA 10 PERCENT NORM ERROR FROM TARGET POLARIZATION
5.15 GEV/C, PLAB

```

T1	T2	P	ERROR
.2	.2	-.174	.027
.254	.254	-.13	.024
.314	.314	-.07	.023
.38	.38	-.042	.025
.44	.44	.013	.03
.532	.532	.04	.03
.627	.627	.044	.037
.723	.723	-.048	.066

.81	.81	-.084	.084
.91	.91	-.24	.088
1.02	1.02	-.36	.1
1.12	1.12	-.49	.117
1.23	1.23	-.53	.126
1.36	1.36	-.515	.155
1.46	1.46	-.73	.21
1.6	1.6	-.485	.27
1.72	1.72	-.795	.31
1.9	1.9	-.43	.425

-3.
C PI- P ELASTIC
C CERN POLARIZATION P.L.24,77(67) P.L.21,114
C FIVE PERCENT RELATIVE ERROR
6.0 GEV/C, PLAB

T1	T2	P	ERROR
.109	.109	-.13	.034
.136	.136	-.166	.018
.166	.166	-.153	.014
.198	.198	-.176	.014
.233	.233	-.115	.015
.269	.269	-.146	.017
.311	.311	-.093	.02
.354	.354	-.08	.022
.4	.4	-.058	.027
.447	.447	-.038	.037
.497	.497	.018	.042
.549	.549	.033	.076
.604	.604	.004	.074
.661	.661	.08	.082
.72	.72	.054	.121
.78	.78	.117	.266

-3.
C PI- P ELASTIC
C CERN POLARIZATION P.L.24,77(67) P.L.21,114
C FIVE PERCENT RELATIVE ERROR
8.0 GEV/C, PLAB

T1	T2	P	ERROR
.104	.104	-.132	.026
.131	.131	-.156	.014
.162	.162	-.155	.012
.195	.195	-.14	.012
.231	.231	-.151	.013
.27	.27	-.12	.014
.311	.311	-.076	.017
.356	.356	-.112	.019
.403	.403	-.061	.02
.454	.454	-.087	.024
.506	.506	-.087	.028
.562	.562	-.06	.037
.62	.62	.014	.038
.68	.68	-.028	.052
.742	.742	-.092	.052
.807	.807	-.144	.166

-3.
C PI- P ELASTIC
C CERN POLARIZATION P.L.24,77(67) P.L.21,114
C FIVE PERCENT RELATIVE ERROR
10.0 GEV/C, PLAB

T1	T2	P	ERROR
.102	.102	-.159	.038
.129	.129	-.154	.019

.159	.159	-.146	.014
.192	.192	-.128	.013
.228	.228	-.131	.014
.267	.267	-.093	.014
.308	.308	-.089	.016
.353	.353	-.073	.017
.401	.401	-.075	.02
.451	.451	-.071	.021
.504	.504	-.044	.024
.56	.56	-.023	.03
.619	.619	-.002	.037
.68	.68	-.08	.042
.743	.743	-.066	.056

-3.
C PI- P ELASTIC
C CERN POLARIZATION P.L.24,77(67)
C FIVE PERCENT RELATIVE ERROR
12.0 GEV/C, PLAB

T1	T2	P	ERROR
.116	.116	-.151	.04
.163	.163	-.177	.03
.198	.198	-.158	.023
.237	.237	-.122	.022
.279	.279	-.11	.023
.324	.324	-.089	.025
.372	.372	-.039	.031
.424	.424	-.003	.035
.478	.478	-.028	.034
.536	.536	-.086	.041
.597	.597	-.043	.048
.661	.661	-.036	.056
.762	.762	-.02	.062

-3.
C PI- P ELASTIC SCATTERING DS/DT
C PI- P ELASTIC
C COFFIN ET AL. MICHIGAN GROUP ..SPARK AT ARGONNE ZGS P.R.159,1171
C FIVE PERCENT EXTRA NORM ERROR
2.3 GEV/C, PLAB

T	DS/DT	ERROR
.062	31.2	.1
.08	29.6	.9
.098	25.	.8
.116	22.4	.8
.134	20.4	.7
.152	19.6	.7
.169	17.5	.7
.187	15.	.6
.204	13.9	.6
.223	11.5	.6
.241	11.9	.6
.259	9.1	.5
.276	7.1	.4
.294	7.45	.45
.312	6.7	.4
.33	6.8	.4
.348	5.9	.4
.374	4.7	.25
.41	3.7	.2
.446	3.1	.2
.481	2.35	.18
.517	1.66	.16
.624	1.17	.06

.802	.69	.05
.981	.67	.05
1.16	.74	.05
1.34	.87	.05
1.52	.69	.05
1.69	.55	.04
1.87	.41	.035
2.05	.36	.035
2.23	.27	.03
2.41	.29	.03
2.59	.26	.03
2.76	.188	.02
2.94	.169	.02
3.12	.143	.02
3.3	.161	.02
3.42	.222	.04
3.5	.356	.04

-3.
C PI- P ELASTIC
C COFFIN ET AL. MICHIGAN GROUP ..SPARK AT ARGONNE ZGS P.R.159,1171
C FIVE PERCENT EXTRA NORM ERROR
2.5 GEV/C, PLAB

T	DS/DT	ERROR
.069	32.8	.1
.088	28.3	.96
.108	24.6	.8
.128	21.7	.8
.147	20.6	.8
.167	18.5	.7
.187	15.3	.7
.206	13.1	.6
.226	11.2	.5
.246	10.2	.5
.265	7.9	.48
.285	8.28	.48
.305	6.14	.41
.324	6.65	.41
.344	5.24	.38
.364	5.31	.38
.383	3.8	.32
.413	3.1	.21
.452	2.34	.18
.491	1.6	.15
.531	1.43	.14
.57	1.13	.13
.688	.671	.044
.884	.505	.038
1.08	.585	.044
.129	.649	.048
1.47	.658	.048
1.67	.118	.038
1.87	.352	.035
2.06	.202	.026
2.26	.082	.022
2.46	.133	.021
2.65	.147	.022
2.85	.13	.02
3.05	.143	.021
3.24	.185	.023
3.44	.207	.024
3.64	.142	.019
3.77	.261	.043

3.86 .464 .045

-3.
C PI- P ELASTIC
C COFFIN ET AL. MICHIGAN GROUP ..SPARK AT ARGONNE ZGS P.R.159,1171
C FIVE PERCENT EXTRA NORM ERROR
2.7 GEV/C, PLAB

T	DS/DT	ERROR
.054	32.7	.1
.075	29.	.9
.097	26.8	.9
.118	22.7	.8
.14	18.6	.7
.161	17.4	.7
.183	15.3	.6
.204	13.15	.6
.224	10.2	.5
.247	9.	.5
.269	7.8	.5
.29	7.5	.4
.312	6.55	.4
.333	5.38	.4
.355	4.73	.4
.376	3.8	.3
.398	3.28	.3
.419	2.31	.25
.441	2.31	.18
.494	1.55	.15
.537	1.26	.13
.58	.94	.11
.623	.67	.1
.752	.4	.03
.967	.81	.04
1.182	.45	.05
1.4	.52	.04
1.61	.42	.04
1.83	.33	.03
2.04	.16	.02
2.26	.091	.017
2.47	.039	.011
2.69	.059	.011
2.9	.05	.012
3.12	.066	.014
3.33	.123	.019
3.55	.149	.02
3.76	.184	.023
3.98	.216	.026
4.13	.212	.053
4.22	.458	.068

-3.
C PI- P ELASTIC
C COFFIN ET AL. MICHIGAN GROUP ..SPARK AT ARGONNE ZGS P.R.159,1171
C FIVE PERCENT EXTRA NORM ERROR
3.0 GEV/C, PLAB

T	DS/DT	ERROR
.085	29.08	1.13
.109	26.17	1.05
.133	22.07	.98
.157	18.61	.87
.182	15.58	.82
.206	14.67	.8
.23	11.03	.68
.254	9.15	.61

.291 7.96 .4
 .339 5.21 .35
 .388 3.83 .28
 .436 2.2 .21
 .51 1.91 .15
 .642 .811 .073
 .848 .545 .051
 1.09 .417 .045
 1.33 .39 .041
 1.76 .232 .024
 2.36 .07 .011
 2.97 .026 .007
 3.58 .071 .011
 4.01 .129 .022
 4.24 .122 .022
 4.48 .071 .016
 4.72 .113 .022
 -3.

C PI+ P ELASTIC
 C COFFIN ET AL. MICHIGAN GROUP --SPARK AT ARGONNE ZGS P.R.159,1171
 C FIVE PERCENT EXTRA NORM ERROR

3.5 GEV/C, PLAB
 T DS/DT ERROR
 .101 21.4 .9
 .13 17.5 .8
 .159 13.9 .7
 .187 11.7 .6
 .216 9.25 .59
 .245 8.36 .57
 .274 7.31 .52
 .303 5.29 .43
 .332 4.29 .39
 .375 3.66 .28
 .447 1.99 .16
 .534 1.15 .12
 .635 .684 .08
 .779 .409 .052
 1.01 .252 .03
 1.3 .194 .028
 1.59 .12 .023
 2.09 .03 .007
 2.81 .006 .003
 3.53 .016 .005
 4.26 .014 .005
 4.76 .027 .01
 5.05 .014 .005
 5.34 .023 .009
 5.61 .025 .01
 -3.

C PI+ P ELASTIC
 C COFFIN ET AL. MICHIGAN GROUP --SPARK AT ARGONNE ZGS P.R.159,1171
 C FIVE PERCENT EXTRA NORM ERROR

3.7 GEV/C, PLAB
 T DS/DT ERROR
 .108 21.42 .89
 .138 17.93 .81
 .169 14.66 .71
 .2 9.33 .57
 .23 8.96 .55
 .261 6.73 .49
 .292 6.59 .48
 .338 4.38 .28
 -3.

.399 2.87 .22
 .461 1.89 .18
 .553 1.13 .1
 .691 .532 .061
 .845 .352 .051
 .998 .188 .037
 1.15 .228 .041
 1.38 .137 .023
 1.69 .065 .016
 2.23 .021 .006
 2.99 .003 .002
 3.76 .004 .002
 4.53 .016 .005
 5.07 .027 .01
 5.38 .027 .01
 5.68 .028 .01
 5.97 .036 .011
 -3.

C PI+ P ELASTIC
 C COFFIN ET AL. MICHIGAN GROUP --SPARK AT ARGONNE ZGS P.R.159,1171
 C 5 PERCENT NORM EXTRA ERROR

4.0 GEV/C, PLAB
 T DS/DT ERROR
 .084 22.4 .73
 .117 17.92 .64
 .151 15. .58
 .184 12.52 .54
 .218 9.3 .47
 .251 7.49 .41
 .285 6.29 .38
 .318 5.68 .36
 .352 3.71 .3
 .402 2.83 .19
 .459 2.06 .15
 .536 1.11 .11
 .604 .83 .09
 .708 .51 .074
 .89 .234 .026
 1.17 .156 .019
 1.51 .049 .011
 1.84 .062 .013
 2.43 .005 .002
 3.26 .003 .002
 4.1 .004 .002
 4.96 .004 .002
 5.53 .015 .006
 5.87 .036 .01
 6.2 .019 .007
 6.52 .028 .009
 -3.

C PI+ P ELASTIC
 C ABHLM P.L. 10,248(64) CERN BUBBLE
 C SCANNING LOSS CORRECTED FOR

4.0 GEV/C, PLAB
 T1 T2 DS/DT ERROR
 .02 .04 39.2 2.9
 .04 .06 30.4 2.1
 .06 .08 24.8 1.5
 .08 .1 22.7 1.5
 .1 .12 17.8 1.3
 .12 .14 13.3 1.1
 .14 .16 15.2 1.2

.16 .18 12.6 1.04
 .18 .2 12.9 1.05
 .2 .24 9.65 .64
 .24 .28 7.09 .55
 .28 .32 4.65 .44
 .32 .36 3.54 .39
 .36 .4 2.44 .32
 .4 .44 2.6 .33
 .44 .48 1.83 .28
 .48 .52 1.58 .26
 .52 .56 1.2 .23
 .56 .6 .35 .15
 .6 .8 .435 .062
 .8 1. .248 .046
 1. 1.5 .137 .021
 1.5 2. .048 .013
 2. 3. .0034 .0024
 3. 4. .0017 .0017
 4. 5. .0051 .0029
 5. 5.5 .01 .006
 5.5 6. .014 .007
 6. 6.68 .036 .009
 -3.

C PI+ P ELASTIC
 C BROOKHAVEN COUNTER EXPT..OREAR ET AL P.R.152,1162

C LARGE T
 DS/DT IN MICROBARN
 4.0 GEV/C, PLAB
 T DS/DT ERROR
 6.648 100. 23.
 6.686 177. 47.
 -3.

C PI+ P ELASTIC
 C LINDENBAUM P.R.L.11,425(63) 3 PERCENT RELATIVE ERROR AFTER ..APPROX.. .25
 C 6 PERCENT NORM ERROR

6.8 GEV/C, PLAB
 T DS/DT ERROR
 .034 30.6 1.8
 .047 28.8 1.7
 .064 25.6 1.5
 .083 23.4 1.4
 .102 18.1 1.2
 .248 5.93 .27
 .318 3.72 .19
 .395 2.07 .12
 .476 1.26 .083
 .564 .685 .054
 .656 .373 .035
 .755 .24 .027
 .859 .139 .019
 .965 .108 .018
 -3.

C PI+ P ELASTIC
 C BROOKHAVEN COUNTER EXPT..OREAR ET AL P.R.152,1162

C LARGE T
 DS/DT IN MICROBARN
 8.0 GEV/C, PLAB
 T DS/DT ERROR
 1.2 33.5 3.
 1.5 14.8 1.5
 1.74 7.18 .79
 2. 3.33 .57
 -3.

2.25 .89 .19
 2.5 .207 .062
 2.72 .137 .07
 3. .043 .02
 3.5 .131 .066
 14.053 2.8 .9
 14.1 7.4 1.9
 14.133 11.7 2.7
 14.154 16.9 5.8
 -3.

C PI+ P ELASTIC
 C CERN SPARK N.C.38,601(65)

8.5 GEV/C, PLAB
 T DS/DT ERROR
 .13 12.55 .49
 .15 10.22 .44
 .17 9.08 .41
 .19 8.24 .39
 .22 6.61 .25
 .26 5.04 .21
 .3 3.82 .19
 .34 3.1 .17
 .38 1.99 .13
 .42 1.81 .15
 .46 .935 .092
 .5 .788 .085
 .54 .745 .083
 .58 .481 .067
 .65 .39 .04
 .75 .185 .028
 .85 .143 .025
 .95 .036 .013
 1.05 .053 .016
 -3.

C PI+ P ELASTIC
 C MORRISON GROUP (CERN) N.P. 88,45(68) DATA FROM TREVOR BYER
 C 11720+-110 EVENTS

8.0 GEV/C, PLAB
 T1 T2 DS/DT ERROR EVENTS
 0.05 0.10 20.3 0.9 3037.
 0.10 0.15 13.2 0.3 1973.
 0.15 0.20 9.2 0.3 1378.
 0.20 0.25 6.5 0.2 965.
 0.25 0.30 4.5 0.2 671.
 0.30 0.35 3.12 0.14 409.
 0.35 0.40 2.2 0.12 328.
 0.40 0.45 1.57 0.10 234.
 0.45 0.50 1.37 0.10 205.
 0.50 0.55 0.92 0.08 138.
 0.55 0.60 0.50 0.06 75.
 0.60 0.70 0.362 0.035 108.
 0.70 0.80 0.235 0.029 70.
 0.80 0.90 0.144 0.022 43.
 0.90 1.00 0.104 0.019 31.
 1.00 1.20 0.046 0.009 28.
 1.20 1.40 0.022 0.006 13.
 1.40 1.60 0.020 0.006 12.
 1.60 1.80 0.0067 0.0033 4.
 1.80 2.00 0.005 0.0029 3.
 -3.

C PI+ P ELASTIC

C LINDENBAUM P.R.L.11,425(63) 3 PERCENT RELATIVE ERROR AFTER ..APPROX.. .25

C 6 PERCENT NORM ERROR

T	DS/DT	ERROR
.04	28.7	1.
.057	25.34	.95
.079	20.13	.78
.106	16.88	.6
.138	13.11	.52
.168	10.	.48
.26	4.83	.22
.332	2.95	.15
.413	1.574	.095
.497	.948	.068
.589	.523	.046
.688	.319	.033
.792	.152	.021
.904	.111	.018

C PI+ P ELASTIC

C LINDENBAUM P.R.L.11,425(63) 3 PERCENT RELATIVE ERROR AFTER ..APPROX.. .25

C 6 PERCENT NORM ERROR

T	DS/DT	ERROR
.036	27.2	2.7
.058	23.93	.79
.084	18.75	.69
.116	14.	.52
.157	10.98	.46
.203	7.23	.34
.249	4.64	.27
.266	4.31	.2
.341	2.36	.13
.424	1.478	.093
.512	.804	.061
.606	.46	.043
.707	.214	.027
.817	.105	.018
.933	.078	.017

C PI+ P ELASTIC

C BROOKHAVEN COUNTER EXPT..UREAR ET AL P.R.152,1162

C LABOUR

DS/DT IN MICROBARNES

12.0 GEV/C, PLAB

T	DS/DT	ERROR
1.2	7.42	1.11
1.5	3.45	.62
2.	.51	.23
2.4	.3	.12

C PI+ P ELASTIC

C CERN SPARK N.C.38,60(65)

C

12.4 GEV/C, PLAB

T	DS/DT	ERROR
.13	10.6	1.07
.15	9.38	1.
.17	6.34	.82
.19	5.85	.66
.22	5.02	.43
.26	3.73	.37

.3	2.8	.32
.34	2.53	.3
.38	1.86	.27
.42	1.11	.2
.46	1.	.19
.5	.73	.16
.54	.63	.15
.58	.44	.13
.65	.387	.076
.75	.207	.055
.85	.09	.036
.95	.089	.036
1.1	.013	.011
1.3	.0001	.0001

C PI+ P ELASTIC

C LINDENBAUM P.R.L.11,425(63) 3 PERCENT RELATIVE ERROR AFTER ..APPROX.. .25

C 6 PERCENT NORM ERROR

12.8 GEV/C, PLAB

T	DS/DT	ERROR
.049	23.8	1.2
.083	19.41	.97
.12	13.8	.62
.166	8.33	.55
.224	6.16	.46
.29	3.95	.35
.276	3.72	.17
.353	2.22	.12
.44	1.205	.075
.53	.66	.049
.628	.321	.03
.745	.188	.022
.848	.112	.016
.969	.062	.013

C PI+ P ELASTIC

C LINDENBAUM P.R.L.11,425(63) 3 PERCENT RELATIVE ERROR AFTER ..APPROX.. .25

C 6 PERCENT NORM ERROR

14.8 GEV/C, PLAB

T	DS/DT	ERROR
.066	21.6	1.1
.11	14.72	.69
.16	8.74	.49
.221	5.23	.36
.298	3.4	.27
.376	1.74	.17
.489	2.29	.15
.57	1.96	.11
.661	1.002	.063
.556	.498	.039
.66	.266	.026
.771	.147	.019
.892	.071	.012

C PI+ P ELASTIC

C LINDENBAUM P.R.L.11,425(63) 3 PERCENT RELATIVE ERROR AFTER ..APPROX.. .25

C 6 PERCENT NORM ERROR

16.7 GEV/C, PLAB

T	DS/DT	ERROR
.084	15.71	.84
.141	9.75	.39
.204	6.03	.29

.282	3.04	.18
.378	1.57	.13
.492	.641	.073
.304	2.85	.16
.389	1.67	.11
.484	.931	.073
.584	.454	.046
.694	.254	.033
.812	.114	.023
.938	.102	.019

-4.

\$\$\$\$\$PI+ P TOTAL CROSS SECTIONS

C PI+ P ELASTIC

C P.R. 144,1101 BROOKHAVEN

C

29.167 .02

3.02

28.831 .015

3.12

28.594 .015

3.22

28.404 .015

3.32

28.316 .015

3.42

28.224 .015

3.52

28.184 .015

3.62

28.069 .015

3.72

27.994 .01

3.82

27.851 .01

3.93

27.721 .01

4.03

27.559 .01

4.13

27.392 .01

4.23

27.243 .01

4.33

27.091 .01

4.43

26.971 .01

4.53

26.866 .01

4.63

26.774 .01

4.73

26.67 .01

4.83

26.594 .01

4.93

26.483 .01

5.03

26.417 .01

5.13

26.305 .01

5.23

26.232 .01

5.33

26.115 .01

5.44

26.048 .01

5.54

25.97 .025

5.64

25.922 .025

5.74

25.795 .025

5.84

25.744 .025

5.94

25.631 .025

6.04

25.61 .025

6.14

25.491 .025

6.24

25.293 .025

6.44

25.187 .025

6.64

25.041 .025

6.84

-3.

C PI+ P ELASTIC
C GALBRAITH ... READ BROOKHAVEN P.R.138,913

C

26.2 .2

6.

25.1 .2

6.

24.8 .2

10.

24.2 .2

12.

23.9 .2

14.

23.4 .2

16.

23.5 .2

18.

23.4 .2

20.

-3.

C PI+ P ELASTIC

C LINDENBAUM P.R.L. 19,330(E622) (67)

C

25.564 .084

7.73

24.921 .079

9.84

24.517 .078

11.9

24.187 .081

14.07

24.025 .076

15.96

23.805 .081

18.02

23.731 .079

20.29

23.422 .098

22.1

-4.

\$\$\$\$\$ PI+ P ELASTIC ... REAL/IMAG

C PI+ P ELASTIC

C LINDENBAUM P.R.L.19,193(67)

C RE/IM .02 SCALE EXTRA ERROR

-225 .019

7.74

-223 .019

9.86

-215 .01

10.02

-185 .018

11.95

-187 .021

14.

-169 .017

16.02

-139 .022

17.96

-144 .031

20.19

-4.

\$\$\$\$\$ PI+ P ELASTIC POLARIZATION

C PI+ P ELASTIC ...POLARIZATION

C COTERLING ET AL CHICAGO ILLINOIS VIENNA 68

C EXTRA 10 PERCENT NORM ERROR FROM TARGET POLARIZATION

5.15 GEV/C, PLAB

T1 T2 P ERROR

166 166 .345 .042

223 223 .315 .029

284 284 .206 .027

345 345 .175 .027

41 41 .138 .035

484 484 .096 .036

57 57 .073 .039

646 646 .025 .057

738 738 .155 .072

83 83 .12 .108

925 925 .336 .123

1 1 .39 .155

1.12 1.12 .33 .2

1.22 1.22 .365 .2

1.34 1.34 .81 .25

1.46 1.46 .457 .33

1.55 1.55 .665 .36

1.67 1.67 .645 .43

1.81 1.81 .195 .3

-3.

C PI+ P ELASTIC

C CERN POLARIZATION P.L.24,77(67)

C FIVE PERCENT RELATIVE ERROR

6.0 GEV/C, PLAB

T1 T2 P ERROR

122 122 .111 .049

166 166 .283 .041

198 198 .205 .025

233 233 .182 .022

271 271 .232 .022

311 311 .16 .022

354 354 .149 .027

399 399 .126 .03

.447 .447 .131 .029
.497 .497 .092 .036
.55 .55 .007 .048
.604 .604 .055 .066
.69 .69 .307 .144

-3.

C PI+ P ELASTIC

C CERN POLARIZATION P.L.24,77(67)

C FIVE PERCENT RELATIVE ERROR

10.0 GEV/C, PLAB

T1 T2 P ERROR

.09 .143 .105 .088

143 .209 .168 .034

209 .287 .132 .024

287 .377 .087 .028

377 .477 .092 .034

477 .589 .046 .048

589 .776 .06 .06

-3.

C PI+ P ELASTIC

C CERN POLARIZATION P.L.24,77(67)

C FIVE PERCENT RELATIVE ERROR

12.0 GEV/C, PLAB

T1 T2 P ERROR

.09 .18 .053 .067

18 .257 .077 .037

257 .347 .043 .04

347 .566 .004 .04

566 .833 .12 .094

-3.

C PI+ P ELASTIC

C R. T. BELL ET AL. CERN, ORSAY, PISA PRELIM RESULTS (VIENNA)

C EXTRA 5 PERCENT TARGET POLAR SCALE ERROR

14.0 GEV/C, PLAB

T1 T2 P ERROR

.1 .2 .18 .06

.2 .3 .14 .034

.3 .4 .11 .039

.4 .55 .073 .039

.55 .7 .0 .053

.7 .9 .044 .1

.9 1.2 .155 .11

-4.

23.30 0.600

20.

23.70 0.500

25.

23.60 0.300

30.

23.50 0.300

35.

23.10 0.300

40.

23.30 0.300

45.

23.40 0.300

50.

23.20 0.300

55.

23.40 0.300

60.

23.40 0.300

65.

-4.

\$\$\$\$\$ K+ P ELASTIC SCATTERING

C K+ P ELASTIC SCATTERING MEDIUM ENERGY

C J.A. DANSYZ ET AL. NIMROD NUCL PHYS.

C PRELIM RESULTS NO EXTRA ERROR

2.11 GEV/C, PLAB

T1 T2 DS/OT ERROR

.01 .05 23.02 2.06

.05 .10 20.11 2.06

.10 .15 18.90 2.05

.15 .20 15.62 1.38

.20 .25 10.91 1.15

.25 .30 9.21 1.06

.30 .40 5.76 .59

.40 .50 5.21 .56

.50 .60 3.69 .47

.60 .70 2.18 .36

.70 .80 1.27 .28

.80 .90 1.51 .30

.90 1.00 1.33 .28

1.00 2.00 .30 .04

2.00 2.70 .05 .02

2.70 3.02 .42 .09

-3.

C K+ P ELASTIC SCATTERING MEDIUM ENERGY

C J.A. DANSYZ ET AL. NIMROD NUCL PHYS.

C PRELIM RESULTS NO EXTRA ERROR

2.31 GEV/C, PLAB

T1	T2	US/DI	ERROR
.01	.05	21.30	2.39
.05	.10	16.97	1.34
.10	.15	12.86	1.16
.15	.20	12.13	1.13
.20	.25	8.97	.97
.25	.30	6.43	.82
.30	.40	5.80	.55
.40	.50	3.69	.44
.50	.60	2.48	.36
.60	.70	2.22	.34
.70	.80	1.74	.30
.80	.90	1.11	.24
.90	1.00	1.53	.28
1.00	2.00	.31	.04
2.00	2.50	.02	.02
2.50	3.00	.09	.03
3.00	3.25	.13	.05
3.25	3.38	.28	.11

-3.
C K+ P ELASTIC SCATTERING MEDIUM ENERGY
C J.A. DANCY ET AL. NIMROD NUCL PHYS.
C PRELIM RESULTS NO EXTRA ERROR
2.53 GEV/C, PLAB

T1	T2	DS/DT	ERROR
.01	.05	17.15	2.06
.05	.10	12.59	1.06
.10	.15	12.06	1.04
.15	.20	11.25	1.00
.20	.25	6.88	.78
.25	.30	7.59	.82
.30	.40	5.41	.49
.40	.50	3.62	.40
.50	.60	2.28	.32
.60	.70	2.05	.30
.70	.80	1.47	.25
.80	.90	.85	.19
.90	1.00	.75	.18
1.00	2.00	.21	.03
2.00	3.00	.04	.02
3.00	4.11	.04	.02
3.50	3.78	.19	.06

-7.
C K+ P ELASTIC SCATTERING MEDIUM ENERGY
C J.A. DANCY ET AL. NIMROD NUCL PHYS.
C PRELIM RESULTS NO EXTRA ERROR
2.72 GEV/C, PLAB

T1	T2	DS/DT	ERROR
.02	.05	18.76	1.90
.05	.10	14.97	1.50
.10	.15	13.43	1.30
.15	.20	11.19	.93
.20	.25	8.65	.82
.25	.30	5.72	.66
.30	.40	4.63	.42
.40	.50	3.67	.38
.50	.60	2.12	.29
.60	.70	1.24	.22
.70	.80	1.12	.21
.80	.90	1.15	.21
.90	1.00	.58	.15
1.00	2.00	.39	.06

2.00	3.00	.07	.02
3.00	4.00	.03	.02
4.00	4.13	.36	.10

-3.
C K+ P ELASTIC
C CERN GROUP
C NOW IN N.C. 43,142(66)
3.0 GEV/C, PLAB

T	DS/DT	ERROR	
.08	14.65	1.51	
.171	8.98	.91	
.287	8.	.65	
.401	3.55	.43	
.516	2.32	.31	
.63	1.45	.23	
.745	1.29	.21	
.86	.62	.13	
.974	.48	.12	
T1	T2	DS/DT	ERROR
1.04	1.49	.19	.04
1.49	2.17	.04	.01
2.17	4.4	.01	.01

-3.
C K+ P ELASTIC
C CERN GROUP
C NOW IN N.C. 45,085(66)
3.5 GEV/C, PLAB

i	US/DI	ERROR	
.0407	15.75	1.66	
.0815	12.5	1.17	
.1358	9.59	.94	
.1901	7.67	.77	
.2444	5.52	.59	
.2988	5.38	.55	
.3531	4.25	.49	
.4074	2.99	.37	
.4617	3.37	.41	
.516	2.53	.33	
.6111	1.58	.18	
.7469	1.12	.14	
.8827	.46	.08	
1.010	.35	.07	
T1	T2	DS/DT	ERROR
1.08	2.03	.056	.01
2.03	5.5	.0068	.0018

-3.
C K+ P ELASTIC
C CERN GROUP
C NOW IN N.C. 45,885(66)
5.0 GEV/C, PLAB

T	DS/DT	ERROR
.0622	14.23	1.78
.1247	9.64	1.14
.2076	6.84	.85
.2906	4.42	.59
.3735	2.72	.4
.4564	2.35	.39
.5393	1.25	.23
.6222	.88	.19
.7052	.52	.14
.7881	.61	.15
.9329	.268	.064

T1	T2	DS/DT	ERROR
1.04	8.3	.049	.0014

-3.
C K+ P ELASTIC
C LINDENBAUM P.R.L.11,503 3PER CENT RELATIVE ERROR AFTER ..APPROX.. .25
C 7 PER CENT NORM ERROR
6.8 GEV/C, PLAB

T	DS/DT	ERROR
.251	4.81	.34
.321	2.93	.24
.399	2.11	.18
.481	1.46	.15
.569	.944	.117
.663	.671	.1
.762	.331	.072
.867	.266	.071
.977	.219	.057
1.091	.117	.049
1.193	.058	.042

-3.
C K+ P ELASTIC
C LINDENBAUM P.R.L.11,503 3PER CENT RELATIVE ERROR AFTER ..APPROX.. .25
C 7 PER CENT NORM ERROR
9.8 GEV/C, PLAB

T	DS/DT	ERROR
.049	14.74	1.56
.071	13.2	1.38
.098	10.15	1.08
.133	8.37	.97
.173	7.87	.94
.212	4.36	.78
.266	4.12	.29
.34	2.69	.21
.423	1.58	.14
.51	1.09	.12
.605	.716	.094
.707	.3	.062
.816	.27	.055
.931	.162	.040
1.051	.043	.027

-1.
C K+ P ELASTIC
C LINDENBAUM P.R.L.11,503 3PER CENT RELATIVE ERROR AFTER ..APPROX.. .25
C 7 PER CENT NORM ERROR
12.8 GEV/C, PLAB

T	DS/DT	ERROR
.05	16.43	1.31
.083	12.76	.99
.17	8.47	.87
.166	7.21	.67
.224	5.05	.53
.291	3.62	.46
.277	3.8	.24
.354	2.25	.17
.441	1.43	.12
.531	.652	.085
.63	.521	.071
.736	.235	.046
.849	.112	.035
.971	.06	.025

1.099	.054	.019
-------	------	------

-3.
C K+ P ELASTIC
C LINDENBAUM P.R.L.11,503 3PER CENT RELATIVE ERROR AFTER ..APPROX.. .25
C 7 PER CENT NORM ERROR
14.0 GEV/C, PLAB

T	DS/DT	ERROR
.066	14.37	1.06
.111	9.61	.84
.161	7.81	.77
.222	5.05	.57
.3	3.63	.41
.389	1.75	.3
.49	3.23	.23
.371	2.	.16
.462	1.23	.11
.558	.805	.086
.661	.451	.067
.774	.181	.045
.896	.153	.04
1.024	.115	.035
1.16	.069	.028

-3.
C K+ P ELASTIC
C R. T. BELL ET AL. CERN, ORSAY, PISA PRELIM RESULTS (VIENNA)
C EXTRA 5 PERCENT TARGET POLAR SCALE ERROR
14.0 GEV/C, PLAB

T1	T2	POLAR	ERROR
.15	.3	.3	.12
.3	.45	.095	.145
.45	.6	.14	.22
.6	.8	.135	.24
.8	1.	.47	.315
1.	1.2	.53	.355

-4.
***** P TOTAL CROSS SECTION

C K+ P ELASTIC
C GALBRAITH ... READ BROOKHAVEN P.R.138,913

T	DS/DT	ERROR
.17.	.1	
.6.		
.17.3	.1	
.8.		
.17.3	.1	
.10.		
.17.3	.1	
.12.		
.17.4	.1	
.14.		
.17.	.1	
.16.		
.17.1	.1	
.18.		

17.5 -1
20.
-4.
\$\$\$\$K- NEUTRON TOTAL CROSS SECTIONS
C INEP-CERN COLLABORATION, SERPUKHOV EXPT
C OCTOBER 1969
C NOW PUBLISHED IN PL, SIGTOT ONLY
**
19.10 0.800
20.
**
19.70 0.600
25.
**
20.10 0.500
30.
**
19.90 0.500
35.
**
19.40 0.500
40.
**
20.20 0.500
45.
**
19.90 0.600
50.
**
20.40 1.000
55.
-4.
\$\$\$\$K- P ELASTIC SCATTERING
C K- P (POLARIZED) ELASTIC SCATTERING BASEL POL CONVENTUON
C C.DAUM ET AL. (CERN) NUCL.PHYS. 86,273(68)
C 8 PERCENT ERROR FORWARD POINTS INTERPOLATIONS FROM OLDER DATA FOR DSDT ONLY
1.383 GEV/C, PLAB

T1	T2	POLAR	ERROR
.0885	.0885	.2500000	.5400000
.1258	.1258	.2700000	.0800000
.2040	.2040	.3200000	.0700000
.2960	.2960	.6300000	.0800000
.3984	.3984	.3700000	.1200000
.5060	.5060	.8000000	.1600000
.5338	.5338	.5600000	.2100000
.6162	.6162	.2600000	.2300000
.6405	.6405	.3900000	.2200000
.7273	.7273	.1200000	.3400000
.7560	.7560	.0200000	.2100000
.8341	.8341	.9100000	.3400000
.8783	.8783	.1200000	.3300000
.9374	.9374	.3300000	.2300000
1.0068	1.0068	.4700000	.1900000
1.0337	1.0337	.9500000	.2200000
1.1240	1.1240	.2200000	.2700000
1.1370	1.1370	.8600000	.2000000
1.2646	1.2646	.1300000	.2200000
1.3852	1.3852	.1600000	.1700000
1.4954	1.4954	.4500000	.1800000
1.5883	1.5883	.1600000	.4900000
1.6603	1.6603	.1000000	.5400000
T	DS/DT	ERROR	

.0885	32.5191	6.5009
.1258	26.0978	5.2196
.2040	14.3918	1.2886
.2960	9.765850	.8687194
.3984	5.4367356	.5284710
.5060	2.8812527	.3547271
.5338	2.4179357	.3764451
.6162	1.7663961	.2968125
.6405	1.9618580	.3185305
.7273	1.1438139	.2895731
.7560	1.8967040	.2968125
.8341	1.3899511	.3257698
.8783	1.0062667	.2244192
.9374	2.1500805	.3692057
1.0068	2.0270120	.2895731
1.0337	2.6713122	.4271204
1.1240	2.2803885	.4633170
1.1370	1.9618580	.2895731
1.2646	1.7229602	.2895731
1.3852	2.5192863	.3402484
1.4954	3.0405179	.4126417
1.5883	.8904374	.3257698
1.6603	1.5636949	.6153429

-3-
K- P (POLARIZED) ELASTIC SCATTERING BASEL POL CONVENTUON
C C.DAUM ET AL. (CERN) NUCL.PHYS. 86,273(68)
C 8 PERCENT ERROR FORWARD POINTS INTERPOLATIONS FROM OLDER DATA FOR DSDT ONLY
1.433 GEV/C, PLAB

T1	T2	POLAR	ERROR
.0902	.0902	.1400000	.3700000
.1312	.1312	.3000000	.0700000
.2141	.2141	.4200000	.0800000
.3116	.3116	.6600000	.1000000
.4191	.4191	.9500000	.1500000
.5339	.5339	.9100000	.1800000
.5539	.5539	.9000000	.2600000
.6505	.6505	.0100000	.2100000
.6650	.6650	.0100000	.2100000
.7671	.7671	.1900000	.4300000
.7862	.7862	.4800000	.2800000
.8800	.8800	.3400000	.3800000
.9147	.9147	.1050000	.3100000
.9894	.9894	.1470000	.4100000
1.0504	1.0504	.9500000	.2400000
1.0905	1.0905	.5800000	.2000000
1.1843	1.1843	.3900000	.2300000
1.1871	1.1871	.7000000	.2000000
1.3219	1.3219	.1100000	.2100000
1.4504	1.4504	.1000000	.2200000
1.5670	1.5670	.0700000	.1800000
1.6654	1.6654	.1500000	.2400000
1.7419	1.7419	.5300000	.5500000
T	DS/DT	ERROR	
.0902	25.0355	5.0071	
.1312	19.0284	3.8070	
.2141	10.6832	2.1380	
.3116	5.4967728	.5310558	
.4191	3.0828826	.3517383	
.5339	1.8964280	.2551827	
.5539	1.4759214	.2689763	
.6505	1.4610246	.2275954	
.6650	1.4828183	.2244922	

.7671	.6689924	.2138017
.7862	1.0000402	.2069049
.8800	.8483100	.2344922
.9147	.7862385	.1655234
.9894	1.0483180	.2551827
1.0504	1.2207387	.2000080
1.0905	2.1311202	.3241510
1.1843	2.1311202	.3586351
1.1871	1.4276436	.2138017
1.3219	1.3586753	.2138017
1.4504	1.3586753	.2275954
1.5670	2.0897392	.2965637
1.6654	1.5035087	.2758732
1.7419	1.3931595	.5379527

-3.0000
K- P (POLARIZED) ELASTIC SCATTERING BASEL POL CONVENTUON
C C.DAUM ET AL. (CERN) NUCL.PHYS. 86,273(68)
C 8 PERCENT ERROR FORWARD POINTS INTERPOLATIONS FROM OLDER DATA FOR DSDT ONLY
1.483 GEV/C, PLAB

T1	T2	POLAR	ERROR
.0926	.0926	.0200000	.2400000
.1346	.1346	.2000000	.0700000
.2243	.2243	.4000000	.0700000
.3273	.3273	.7300000	.1000000
.4419	.4419	1.0000000	.1600000
.5621	.5621	1.1500000	.2600000
.5736	.5736	1.0100000	.2600000
.6862	.6862	.2500000	.3200000
.6900	.6900	.2600000	.3100000
.8083	.8083	.6900000	.6800000
.8160	.8160	.2200000	.2400000
.9276	.9276	.9600000	.3800000
.9515	.9515	1.0300000	.3000000
1.0412	1.0412	.9600000	.3200000
1.0937	1.0937	1.1900000	.2200000
1.1471	1.1471	.8600000	.2800000
1.2378	1.2378	.5300000	.1700000
1.2445	1.2445	.7800000	.2400000
1.3800	1.3800	.2200000	.2300000
1.5155	1.5155	.4100000	.2700000
1.6291	1.6291	.5900000	.2200000
1.7436	1.7436	.0400000	.1800000
1.8237	1.8237	.0600000	.7600000

T	DS/DT	ERROR
.0926	25.9402	5.1880
.1346	20.1136	4.0227
.2243	10.3893	.9020
.3273	4.8193536	.4806186
.4419	1.7315437	.2172659
.5621	1.1850870	.2172659
.5736	1.1390002	.2106821
.6862	.8163932	.1975145
.6900	.7242198	.1645954
.8083	.4213643	.1975145
.8160	.9480696	.17111792
.9276	1.1126650	.2765203
.9515	.9414857	.1909307
1.0412	1.1653355	.2501850
1.0937	1.3826014	.2040983
1.1471	1.4879425	.2896879
1.2378	1.4155205	.1909307
1.2445	2.0475669	.3423585

1.3800	.9875725	.17111792
1.5155	1.0204915	.2106821
1.6291	1.6262027	.2699365
1.7436	2.1594918	.2962717
1.8237	.8427285	.4806186

-3-
K- P (POLARIZED) ELASTIC SCATTERING BASEL POL CONVENTUON
C C.DAUM ET AL. (CERN) NUCL.PHYS. 86,273(68)
C 8 PERCENT ERROR FORWARD POINTS INTERPOLATIONS FROM OLDER DATA FOR DSDT ONLY
1.534 GEV/C, PLAB

T1	T2	POLAR	ERROR
.0949	.0949	.0400000	.1600000
.1418	.1418	.1800000	.0600000
.2347	.2347	.2800000	.0700000
.3436	.3436	.7400000	.1100000
.4644	.4644	.8800000	.2000000
.5922	.5922	1.1100000	.3900000
.7151	.7151	.5500000	.4300000
.7221	.7221	.5400000	.3400000
.8469	.8469	.3500000	.3600000
.8509	.8509	1.2000000	.5500000
.9757	.9757	.7300000	.3200000
.9887	.9887	1.1900000	.2900000
1.0956	1.0956	.7700000	.2600000
1.1345	1.1345	.0700000	.3200000
1.2064	1.2064	.5100000	.2000000
1.2883	1.2883	.4900000	.2000000
1.3083	1.3083	.8600000	.2900000
1.4382	1.4382	.7800000	.2400000
1.5810	1.5810	.3200000	.2800000
1.7118	1.7118	.5800000	.2600000
1.8267	1.8267	.1700000	.2300000
1.9075	1.9075	.6600000	.5700000

T	DS/DT	ERROR
.0949	27.8577	5.5741
.1418	19.5029	3.9006
.2347	9.6759552	.8304461
.3436	4.0138228	.4089318
.4644	1.1953391	.1761552
.5922	.6983297	.1761552
.7151	.5095919	.1577815
.7221	.6920384	.1698640
.8469	.5221744	.1384077
.8509	.5347570	.1761552
.9757	.9499800	.2139028
.9887	.9311042	.1741552
1.0956	.9751450	.1824465
1.1365	1.1701740	.1761552
1.2064	1.9314163	.2831066
1.2883	.9436887	.1446989
1.3083	1.5161932	.3019804
1.4382	1.0317664	.1761552
.5810	.8744849	.1824465
1.7118	1.2079216	.2264853
1.8267	1.4092419	.2390678
1.9075	.9373975	.3711842

-3-
K- P (POLARIZED) ELASTIC SCATTERING BASEL POL CONVENTUON
C C.DAUM ET AL. (CERN) NUCL.PHYS. 86,273(68)
C 8 PERCENT ERROR FORWARD POINTS INTERPOLATIONS FROM OLDER DATA FOR DSDT ONLY
1.584 GEV/C, PLAB

T1	T2	POLAR	ERROR
----	----	-------	-------

.0980	.0980	.0200000	.2400000
.1480	.1480	.2400000	.0600000
.2450	.2450	.2300000	.0700000
.3607	.3607	.5800000	.1200000
.4878	.4878	1.1200000	.2000000
.6129	.6129	1.0500000	.5400000
.6213	.6213	.4900000	.2800000
.7380	.7380	.4300000	.4500000
.7578	.7578	.3700000	.3400000
.8767	.8767	.7900000	.4000000
.8933	.8933	.1800000	.5100000
1.0247	1.0247	1.2200000	.4400000
1.0403	1.0403	.3400000	.2900000
1.1487	1.1487	.8200000	.4900000
1.1790	1.1790	1.0900000	.2500000
1.2655	1.2655	.4600000	.2700000
1.3374	1.3374	.4400000	.2200000
1.3718	1.3718	1.1900000	.3300000
1.4948	1.4948	.8200000	.2300000
1.6460	1.6460	.4800000	.3500000
1.7825	1.7825	.1600000	.2600000
1.9003	1.9003	.1200000	.2500000
1.9910	1.9910	1.2800000	1.2500000

T DS/DT ERROR

.0980	27.3049	5.4610
.1480	18.4203	3.6829
.2450	8.5350508	.7474197
.3607	3.1343407	.3435720
.4878	1.0548262	.1567170
.6129	.4882338	.1627446
.6213	.6690612	.1326067
.7380	.4460408	.1446619
.7578	.6509784	.1567170
.8767	.5002890	.1326067
.8933	.4460408	.1627446
1.0247	.7052267	.1928825
1.0403	.6328957	.1326067
1.1487	.4460400	.1446617
1.1790	.7956403	.1386343
1.2655	1.2055156	.2350756
1.3374	.9787470	.1566895
1.3718	1.3320948	.2832962
1.4948	.9161919	.1506892
1.6460	.7112542	.1747998
1.7825	1.1814053	.2049377
1.9003	1.1074327	.2103726
1.9910	.4641235	.3315168

-3-

C K-P (POLARIZED) ELASTIC SCATTERING BASEL POL CONVENTUON

C C.DAUM ET AL. (CERN) NUCL. PHYS. B6, 273(1981)

C 8 PERCENT ERROR FORWARD POINTS INTERPOLATIONS FROM OLDER DATA FOR DSDT I

1.634 GEV/C, PLAB

T1	T2	POLAR	ERROR
.0999	.0999	.2700000	.1500000
.1542	.1542	.1400000	.0600000
.2564	.2564	.1900000	.0800000
.3769	.3769	.5200000	.1500000
.5105	.5105	1.4200000	.4100000
.6311	.6311	.9800000	.3900000
.6518	.6518	.8600000	.4900000
.7626	.7626	.0800000	.5100000
.7951	.7951	.5800000	.1550000
.9049	.9049	.9600000	.5100000
.9374	.9374	1.1400000	.5300000
1.0591	1.0591	.6600000	.3300000
1.0743	1.0743	.9300000	.6400000
1.2036	1.2036	.5300000	.4100000
1.2210	1.2210	1.0300000	.3600000
1.3018	1.3018	.1700000	.3700000
1.3872	1.3872	.7800000	.2200000
1.4349	1.4349	.9300000	.4600000
1.5523	1.5523	1.3600000	.4200000
1.7098	1.7098	.3700000	.4200000
1.8542	1.8542	.2100000	.3400000
1.9781	1.9781	.2100000	.3700000

T DS/DT ERROR

.0999	31.7786	6.3569
.1542	19.1169	1.6080
.2564	9.6076094	.8965560
.3769	3.0020164	.3759751
.5105	.9196929	.2255850
.6311	.8329294	.2160166
.6518	.4196016	.1446058
.7626	.4685228	.1735270
.7951	.1561743	.1735270
.9049	.4806913	.1619585
.9374	.6773644	.7074641
1.0591	.8444979	.1966639
1.0743	.9010703	.2311695
1.2036	.6651867	.1900797
1.2210	.6536182	.1561743
1.3242	1.1626306	.2716431
1.3872	1.1857676	.1850954
1.4349	1.0816514	.3297012
1.5523	.6426498	.1619585
1.7098	.6825394	.2082324
1.8542	.9428298	.2313693
1.9781	.9081244	.2487220

-3-

K-P (POLARIZED) ELASTIC SCATTERING BASEL POL CONVENTUON

C C.DAUM ET AL. (CERN) NUCL. PHYS. B6, 273(1981)

C 8 PERCENT ERROR FORWARD POINTS INTERPOLATIONS FROM OLDER DATA FOR DSDT I

1.684 GEV/C, PLAB

T1	T2	POLAR	ERROR
.1029	.1029	.3300000	.2000000
.1594	.1594	.2600000	.0600000
.2667	.2667	.3600000	.0700000
.3945	.3945	.4600000	.1400000
.5346	.5346	.0300000	.2800000
.6499	.6499	1.2000000	.3700000

.6827	.6827	.5000000	.3500000
.7855	.7855	1.0000000	.3000000
.8330	.8330	1.7000000	.3900000
.9336	.9336	.3300000	.2600000
.9811	.9811	.9300000	.3300000
1.0941	1.0941	1.1700000	.4100000
1.1235	1.1235	.9800000	.4200000
1.2591	1.2591	1.6600000	.7200000
1.2625	1.2625	.9400000	.3500000
1.3846	1.3846	.6800000	.3600000
1.4354	1.4354	.5900000	.2200000
1.4999	1.4999	.6300000	.4600000
1.6084	1.6084	1.0700000	.4300000
1.7745	1.7745	.0400000	.5300000
1.9260	1.9260	.0000000	.3600000
2.0560	2.0560	.5600000	1.0300000
2.1566	2.1566	.2500000	1.3600000

T DS/DT ERROR

.1029 27.0669 5.4145

.1594 17.4887 3.4966

.2667 8.5497727 .7615857

.3945 2.7517149 .3335412

.5346 .9116793 .1890067

.6499 .6504053 .1778886

.6827 .6893185 .1723296

.7855 .8171759 .1834477

.8330 .9836971 .1723296

.9336 .8672071 .1723296

.9811 .8616581 .1945557

1.0941 .5225479 .1389755

1.1235 .7226726 .2056837

1.2591 .5559020 .2168018

1.2625 .6615234 .1612116

1.3846 .8171759 .2112428

1.4354 .9505924 .1556526

1.4999 .8560891 .2779510

1.6084 .4891938 .1389755

1.7745 .3391002 .1334165

1.9260 .4613987 .1945657

2.0560 .2557149 .1834477

2.1566 .2890690 .2946281

K-P (POLARIZED) ELASTIC SCATTERING BASEL POL CONVENTUON

C C.DAUM ET AL. (CERN) NUCL. PHYS. B6, 273(1981)

C 8 PERCENT ERROR FORWARD POINTS INTERPOLATIONS FROM OLDER DATA FOR DSDT ONLY

1.734 GEV/C, PLAB

T1	T2	POLAR	ERROR
.1033	.1033	.0700000	.1300000
.1656	.1656	.2100000	.0500000
.2783	.2783	.4800000	.0900000
.4122	.4122	.3200000	.1100000
.5590	.5590	.4800000	.2600000
.6682	.6682	.2300000	.2800000
.7140	.7140	.7300000	.5000000
.8080	.8080	1.3000000	.2300000
.8714	.8714	.8700000	.2500000
.9618	.9618	.8900000	.2400000
1.0253	1.0253	.9100000	.4000000
1.1274	1.1274	.7600000	.2000000
1.1744	1.1744	1.0600000	.3600000
1.3036	1.3036	.6200000	.1900000
1.3153	1.3153	1.3200000	.4800000

1.4457	1.4457	.9000000	.2800000
1.4845	1.4845	.7800000	.2300000
1.6641	1.6641	.5200000	.2000000
1.8380	1.8380	.6700000	.5800000
1.9977	1.9977	.9600000	.5500000
2.1339	2.1339	.2700000	.4200000
2.2396	2.2396	.7700000	.6700000

T DS/DT ERROR

.1033 27.8630 5.5747

.1656 18.1099 3.6220

.2783 7.8966621 .15782624

.4122 3.2260754 .3210025

.5590 .8774069 .1551512

.6682 .7650569 .1658513

.7140 .4066032 .1391011

.8080 .8453066 .1444511

.8714 .6634052 .1177009

.9618 .7383058 .1284010

1.0253 .5564044 .1498012

1.1274 .8774069 .1284010

1.1744 .7062056 .1658513

1.3036 .9897578 .1444511

1.3153 .6206049 .1819014

1.4457 .7971563 .1605013

1.4845 .6673561 .1070000

1.6641 .8774069 .1284010

1.8380 .4041361 .1070000

1.9977 .3852030 .1284010

2.1339 .6580552 .1979516

2.2396 .7222557 .2675021

K-P (POLARIZED) ELASTIC SCATTERING BASEL POL CONVENTUON

C C.DAUM ET AL. (CERN) NUCL. PHYS. B6, 273(1981)

C 8 PERCENT ERROR FORWARD POINTS INTERPOLATIONS FROM OLDER DATA FOR DSDT ONLY

1.784 GEV/C, PLAB

T1	T2	POLAR	ERROR
.1048	.1048	0.0000000	.0900000
.1718	.1718	.0800000	.0500000
.2901	.2901	.2200000	.0600000
.4302	.4302	.3300000	.1100000
.5838	.5838	.9100000	.2700000
.6861	.6861	.8600000	.3000000
.7471	.7471	.5300000	.6400000
.8299	.8299	.3000000	.2100000
.9104	.9104	.8500000	.3300000
.9896	.9896	.5700000	.2100000
1.0712	1.0712	.9300000	.3100000
1.1626	1.1626	.5200000	.2500000
1.2260	1.2260	.6400000	.3900000
1.3642	1.3642	.8700000	.7600000
1.3723	1.3723	1.2800000	.6300000
1.5075	1.5075	.3400000	.4200000
1.5319	1.5319	.8000000	.2800000
1.6306	1.6306	.8700000	.3900000
1.7330	1.7330	.8900000	.2300000
1.9024	1.9024	.6300000	.3300000
2.0681	2.0681	.1500000	.5300000
2.2107	2.2107	.1100000	.3000000
2.3216	2.3216	.9800000	.7900000

T DS/DT ERROR

.1048 26.5928 5.3155

.1718 16.6270 3.3305

.2901 7.9500117 .6547675
 .4302 2.6860935 .2732494
 .5838 .7681918 .1392025
 .6861 .6238336 .1288912
 .7471 .2887164 .1237356
 .8299 .8300596 .1288912
 .9104 .4640085 .1031130
 .9896 .7888144 .1185799
 1.0712 .4588528 .0979573
 1.1626 .5877441 .1082686
 1.2260 .5155650 .1392025
 1.3442 .6547675 .1134243
 1.3723 .4072963 .1495138
 1.5075 .5722771 .1701364
 1.5319 .4743198 .0928017
 1.6306 .7578805 .1959147
 1.7330 .6908570 .1134243
 1.9024 .4794754 .1082686
 2.0681 .2887164 .1082686
 2.2107 .8455265 .1804477
 2.3216 .3866737 .1907590

-3-
 K- P (POLARIZED) ELASTIC SCATTERING BASEL POL CONVENTUON
 C C.DAUM ET AL. (CERN) NUCL.PHYS. B6,273(68)
 C 8 PERCENT ERROR FORWARD POINTS INTERPOLATIONS FROM OLDER DATA FOR DSDT ONLY
 1.884 GEV/C, PLAB

T1	T2	POLAR	ERROR
.1098	.1098	.0800000	.1000000
.1844	.1844	.2000000	.0500000
.3138	.3138	.3800000	.0700000
.4668	.4668	.3900000	.1200000
.6355	.6355	.1280000	.4300000
.8120	.8120	.9300000	.7600000
.8735	.8735	.4700000	.4000000
.9899	.9899	.9300000	.4000000
1.0435	1.0435	.3800000	.2600000
1.1638	1.1638	.4700000	.3100000
1.2279	1.2279	.3700000	.2200000
1.3312	1.3312	.5100000	.3200000
1.4240	1.4240	.8500000	.4600000
1.4881	1.4881	1.3400000	.7400000
1.6280	1.6280	.3900000	.3100000
1.6332	1.6332	.8600000	.5100000
1.8320	1.8320	.8700000	.2900000
2.0294	2.0294	.3300000	.3400000
2.2112	2.2112	.7300000	.3900000
2.3681	2.3681	.8400000	.6300000

T	DS/DT	ERROR
.1098	29.0946	5.8189
.1844	16.8753	1.3070
.3138	7.1979675	.6390719
.4668	2.4361612	.2642778
.6355	.5237506	.1345414
.8120	.2786930	.1345414
.8735	.4660900	.1297364
.9899	.5621911	.1441516
1.0435	.6727072	.1249313
1.1638	.5237506	.1153212
1.2279	.8889346	.1441516
1.3312	.7207578	.1585667
1.4240	.3267435	.0961010
1.4881	.4084294	.1681768

1.6280 .5237506 .1153212
 1.6332 .5862163 .1922021
 1.8320 .6102416 .1153212
 2.0294 .4516749 .1105162
 2.2112 .4228446 .1105162
 2.3681 .4420648 .1777869

-3-
 K- P (POLARIZED) ELASTIC SCATTERING BASEL POL CONVENTUON
 C C.DAUM ET AL. (CERN) NUCL.PHYS. B6,273(68)
 C 8 PERCENT ERROR FORWARD POINTS INTERPOLATIONS FROM OLDER DATA FOR DSDT ONLY
 1.934 GEV/C, PLAB

T1	T2	POLAR	ERROR
.1122	.1122	.7600000	.0900000
.1907	.1907	.2300000	.0500000
.3259	.3259	.2900000	.0400000
.4855	.4855	.5200000	.1000000
.6612	.6612	.5400000	.2500000
.8452	.8452	.1200000	.3700000
1.0318	1.0318	.5400000	.3000000
1.2116	1.2116	.3800000	.2300000
1.3847	1.3847	.5100000	.2800000
1.5470	1.5470	.6100000	.3700000
1.6741	1.6741	.3300000	.2600000
1.6971	1.6971	.4300000	.4400000
1.8323	1.8323	.6600000	.4400000
1.8864	1.8864	.4100000	.2900000
2.0919	2.0919	.0100000	.1800000
2.2812	2.2812	.5900000	1.2000000
2.5733	2.5733	.2000000	2.6100000

T	DS/DT	ERROR
.1122	23.8550	4.7719
.1907	13.8512	2.7693
.3259	6.1612367	.4507089
.4855	1.5008141	.1440410
.6612	.3949511	.0696972
.8452	.2509101	.0650508
1.0318	.3345468	.0696972
1.2116	.4925272	.0789902
1.3847	.3066679	.0604043
1.5470	.3345468	.0836367
1.6741	.3020214	.0557578
1.6971	.3020214	.0929297
1.8323	.2648495	.0789902
1.8864	.2602031	.0557578
2.0919	.4100010	.0604043
2.2812	.0743437	.0604043
2.5733	.0511113	.0929297

-3-
 K- P (POLARIZED) ELASTIC SCATTERING BASEL POL CONVENTUON
 C C.DAUM ET AL. (CERN) NUCL.PHYS. B6,273(68)
 C 8 PERCENT ERROR FORWARD POINTS INTERPOLATIONS FROM OLDER DATA FOR DSDT ONLY
 1.984 GEV/C, PLAB

T1	T2	POLAR	ERROR
.1146	.1146	.1400000	.0900000
.1970	.1970	.1900000	.0500000
.3381	.3381	.2700000	.0700000
.5043	.5043	.4700000	.1100000
.6873	.6873	.9600000	.3400000
.7530	.7530	.5600000	.6000000
.8787	.8787	.2100000	.4800000
.9164	.9164	.1700000	.2400000
1.0715	1.0715	.7700000	.2900000

T1	T2	POLAR	ERROR
1.0966	1.0966	.3900000	.2100000
1.2601	1.2601	.6700000	.2300000
1.2936	1.2936	.6100000	.2200000
1.4389	1.4389	1.0500000	.3600000
1.5031	1.5031	.2800000	.2500000
1.6065	1.6065	.3700000	.6400000
1.7211	1.7211	.5700000	.2900000
1.7602	1.7602	.9400000	.4800000
1.8999	1.8999	1.0700000	.4600000
1.9404	1.9404	.1500000	.3900000
2.1541	2.1541	.7400000	.4400000
2.3525	2.3525	.9000000	.8800000
2.5243	2.5243	.7400000	.7300000

T	DS/DT	ERROR
.1146	24.0358	4.8216
.1970	13.2368	1.0030
.3381	4.8710359	.4182884
.5043	1.7990899	.1799090
.6873	.5082429	.1079454
.7530	.2293840	.0944522
.8787	.2608680	.0899545
.9164	.5532201	.0944522
1.0715	.4992475	.0989499
1.0966	.5847042	.0899545
1.2601	.6746587	.1124431
1.2936	.5082429	.0809590
1.4389	.3283339	.0809590
1.5031	.4767588	.0854568
1.6065	.2383794	.1079454
1.7211	.3193385	.0674659
1.7602	.3868043	.1214386
1.8999	.3463248	.1034477
1.9404	.3013476	.0854568
2.1541	.2293840	.0674659
2.3525	.1439272	.0809590
2.5243	.2158908	.0989499

-3-
 K- P (POLARIZED) ELASTIC SCATTERING BASEL POL CONVENTUON
 C C.DAUM ET AL. (CERN) NUCL.PHYS. B6,273(68)
 C 8 PERCENT ERROR FORWARD POINTS INTERPOLATIONS FROM OLDER DATA FOR DSDT ONLY
 2.034 GEV/C, PLAB

T1	T2	POLAR	ERROR
.1153	.1153	.0500000	.0700000
.2047	.2047	.3100000	.0400000
.3504	.3504	.3500000	.0500000
.5234	.5234	.3300000	.1000000
.7151	.7151	.5700000	.2400000
.7699	.7699	.1200000	.2300000
.9141	.9141	.2200000	.2200000
.9372	.9372	.3900000	.3000000
1.1145	1.1145	.3400000	.2500000
1.1217	1.1217	.2000000	.1900000
1.3091	1.3091	.4300000	.3000000
1.3250	1.3250	.3400000	.1800000
1.4937	1.4937	.4800000	.2000000
1.5413	1.5413	.3600000	.2000000
1.6667	1.6667	.3800000	.4200000
1.7676	1.7676	.3600000	.2400000
1.8253	1.8253	.1800000	.3700000
1.9695	1.9695	.2500000	.3900000
1.9954	1.9954	.0500000	.2300000
2.2175	2.2175	.6600000	.3100000

T	DS/DT	ERROR
.1153	20.1205	4.0224
.2047	10.6028	2.1136
.3504	1.7521688	.1050548
.5234	1.1374155	.1133058
.7151	.3442752	.0610108
.7699	.3747806	.0653687
.9141	.3617068	.0610108
.9372	.2527590	.0566529
1.1145	.3442752	.0653687
1.1217	.3834964	.0566529
1.3091	.2963381	.0653687
1.3250	.3922122	.0522950
1.4937	.3878543	.0566529
1.5413	.3666648	.0566529
1.6667	.2222536	.0697266
1.7676	.2309694	.0435791
1.8253	.2832644	.0784424
1.9695	.2353273	.0697266
1.9954	.2745486	.0479371
2.2175	.1917482	.0435791
2.4236	.1220216	.0522950

-3-
 K- P (POLARIZED) ELASTIC SCATTERING BASEL POL CONVENTUON
 C C.DAUM ET AL. (CERN) NUCL.PHYS. B6,273(68)
 C 8 PERCENT ERROR FORWARD POINTS INTERPOLATIONS FROM OLDER DATA FOR DSDT ONLY
 2.084 GEV/C, PLAB

T1	T2	POLAR	ERROR
.1174	.1174	.2600000	.0700000
.2111	.2111	.2300000	.0400000
.3628	.3628	.4100000	.0600000
.5441	.5441	.6300000	.1300000
.7419	.7419	.5500000	.2600000
.7850	.7850	.5400000	.4300000
.9485	.9485	.2300000	.2700000
.9574	.9574	.4400000	.2600000
1.1477	1.1477	.1500000	.2500000
1.1566	1.1566	.2800000	.2800000
1.3559	1.3559	.4300000	.2100000
1.3573	1.3573	1.0500000	.3400000
1.5491	1.5491	.5200000	.2700000
1.5804	1.5804	.2900000	.2300000
1.7275	1.7275	.5200000	.3100000
1.8138	1.8138	.1800000	.2300000
1.8911	1.8911	.5100000	.4400000
2.0383	2.0383	.3500000	.5700000
2.0487	2.0487	.4300000	.2600000
2.2791	2.2791	1.6800000	1.4000000
2.4947	2.4947	.6200000	2.4700000
2.6805	2.6805	.6300000	.8100000
2.8247	2.8247	1.0500000	.4000000

T	DS/DT	ERROR
.1174	21.3596	4.2728
.2111	11.2123	2.2442
.3628	3.8247862	.3169713
.5441	1.0396658	.1141097
.7419	.4564387	.0845257
.7850	.2324456	.0676205
.9485	.3676867	.0718468
.9574	.4268547	.0802994
1.1477	.3888181	.0676205

1.1566 .3719130 .0718468
1.3559 .4564387 .0676205
1.3573 .3676867 .0802994
1.5491 .3211976 .0633943
1.5804 .3845918 .0633943
1.7275 .2916136 .0633943
1.8138 .3719130 .0633943
1.8911 .3000662 .0887529
2.0383 .1901828 .0760731
2.0487 .3000662 .0549417
2.2791 .0760731 .0507154
2.4947 .0338103 .0549417
2.6805 .1352411 .0760731
2.8247 .4564387 .1183359

-3-
K- P (POLARIZED) ELASTIC SCATTERING BASEL POL CONVENTUON
C C.DAUM ET AL. (CERN) NUCL.PHYS. B6,273(168)
C 8 PERCENT ERROR FORWARD POINTS INTERPOLATIONS FROM OLDER DATA FOR OSDT ONLY
2.134 GEV/C, PLAB

T1	T2	POLAR	ERROR
1.1195	1.1195	.3000000	.0700000
2.175	2.175	.2600000	.0500000
3.753	3.753	.4300000	.0800000
5.637	5.637	.6500000	.1400000
7.704	7.704	.7500000	.3800000
8.164	8.164	.4000000	.2900000
9.772	9.772	.4600000	.2600000
9.849	9.849	.0900000	.3200000
1.1733	1.1733	.4900000	.2000000
1.1993	1.1993	.5700000	.2500000
1.3877	1.3877	.4100000	.1900000
1.4076	1.4076	.5900000	.2100000
1.6052	1.6052	.7600000	.2400000
1.6175	1.6175	.5000000	.1900000
1.7890	1.7890	.2600000	.2600000
1.8579	1.8579	.1800000	.2700000
1.9575	1.9575	.4100000	.2400000
2.1030	2.1030	.3800000	.4100000
2.1091	2.1091	.3600000	.7600000
2.3419	2.3419	.7300000	1.0600000

T DS/DT ERROR

T1	T2	POLAR	ERROR
1.1195	23.2428	.46395	
2.175	11.9332	.9271	
3.753	3.895912	.3450916	
5.637	1.2470543	.1476775	
7.704	.3650916	.0943495	
8.164	.5086669	.1066560	
9.772	.4717475	.0902474	
9.849	.3732059	.0902474	
1.1733	.5660970	.0861452	
1.1993	.5250755	.0984517	
1.3877	.5743013	.0820430	
1.4076	.6973659	.1107581	
1.6052	.6399358	.1107581	
1.6175	.5127691	.0738387	
1.7890	.4348282	.0861452	
1.8579	.3691937	.0738387	
1.9575	.7547960	.1353710	
2.1030	.2133119	.0615323	
2.1091	.1886990	.1066560	
2.3419	.0820430	.0574301	

K- P (POLARIZED) ELASTIC SCATTERING BASEL POL CONVENTUON
C C.DAUM ET AL. (CERN) NUCL.PHYS. B6,273(168)
C 8 PERCENT ERROR FORWARD POINTS INTERPOLATIONS FROM OLDER DATA FOR OSDT ONLY
2.175 GEV/C, PLAB

T1	T2	POLAR	ERROR
1.1708	1.1708	.1400000	.1100000
2.227	2.227	.1900000	.0500000
3.875	3.875	.4300000	.0800000
5.820	5.820	.9300000	.1800000
7.937	7.937	.5200000	.7100000
8.014	8.014	.7100000	.3500000
1.0149	1.0149	.1000000	.2900000
1.1906	1.1906	.3700000	.2000000
1.2361	1.2361	.5400000	.1900000
1.4102	1.4102	.7000000	.2100000
1.4510	1.4510	.5600000	.2000000
1.6471	1.6471	.1600000	.2200000
1.6533	1.6533	.4000000	.7200000
1.8416	1.8416	.5500000	.3400000
1.8933	1.8933	.5000000	.2200000
2.0125	2.0125	.6900000	.3400000
2.1443	2.1443	.3100000	.2800000
2.6212	2.6212	.3900000	.1700000
2.8706	2.8706	.1400000	.1100000
2.9773	2.9773	.2000000	.6900000

T DS/DT ERROR

T1	T2	POLAR	ERROR
1.1708	23.9290	.4.7866	
2.227	11.2676	.8692	
3.875	3.6570490	.3404701	
5.820	.9012443	.1241714	
7.937	.1562157	.0761051	
8.014	.2523484	.0640885	
1.0149	.4045585	.0841161	
1.1906	.5367410	.0841161	
1.2361	.7250009	.1041438	
1.4102	.5247244	.0801106	
1.4510	.7450286	.1121548	
1.6471	.4785917	.0680940	
1.6533	.5207189	.0841161	
1.8416	.3324590	.0001106	
1.8933	.4846691	.0761051	
2.0125	.5046968	.1201659	
2.1443	.3364645	.0680940	
2.6212	.0921272	.0761051	
2.8204	.1121548	.0881217	
2.9773	.2883982	.1441991	

-3-
K- P (POLARIZED) ELASTIC SCATTERING BASEL POL CONVENTUON
C C.DAUM ET AL. (CERN) NUCL.PHYS. B6,273(168)
C 8 PERCENT ERROR FORWARD POINTS INTERPOLATIONS FROM OLDER DATA FOR OSDT ONLY
2.284 GEV/C, PLAB

T1	T2	POLAR	ERROR
1.1234	1.1234	.0300000	.0700000
2.384	2.384	.2800000	.0500000
4.168	4.168	.4400000	.0900000
6.268	6.268	.8300000	.2200000
8.552	8.552	.3200000	.5300000
1.0953	1.0953	.3600000	.2200000
1.2453	1.2453	.1300000	.2300000
1.3320	1.3320	.5400000	.4000000
1.4770	1.4770	.1.0400000	.4000000
1.5604	1.5604	.7300000	.3600000

T1	T2	POLAR	ERROR
1.7288	1.7288	-.4900000	.2800000
1.7771	1.7771	1.1000000	.5200000
1.9772	1.9772	.0500000	.3700000
1.9922	1.9922	-.2000000	1.0800000
2.2622	2.2622	-.5100000	.6100000
2.5273	2.5273	-.1000000	.5000000
2.7740	2.7740	-.8400000	.5200000
2.9908	2.9908	.0900000	1.4400000
3.1608	3.1608	.5800000	1.2100000

T DS/DT ERROR

T1	T2	POLAR	ERROR
1.1234	21.5886	4.3305	
2.384	2.4186268	.7161021	
4.168	2.3970575	.2299065	
6.268	.5691127	.0904550	
8.552	.1771410	.0678412	
1.0953	.4748887	.0791481	
1.2453	.4221233	.0716102	
1.3320	.2638271	.0753792	
1.4770	.2977477	.0753792	
1.5604	.3392062	.0829171	
1.7288	.3467442	.0716102	
1.7771	.2638271	.0829171	
1.9772	.2412133	.0640723	
1.9922	.0603033	.0489965	
2.2622	.1319135	.0565344	
2.5273	.1696031	.0640723	
2.7740	.2412133	.0829171	
2.9908	.0640723	.0678412	
3.1608	.1319135	.1092998	

-3-
K- P (POLARIZED) ELASTIC SCATTERING BASEL POL CONVENTUON
C C.DAUM ET AL. (CERN) NUCL.PHYS. B6,273(168)
C 8 PERCENT ERROR FORWARD POINTS INTERPOLATIONS FROM OLDER DATA FOR OSDT ONLY
2.325 GEV/C, PLAB

T1	T2	POLAR	ERROR
1.244	1.244	.1800000	.0900000
2.454	2.454	.3200000	.0600000
4.278	4.278	.5500000	.1100000
6.442	6.442	.9900000	.5400000
8.811	8.811	-.4000000	.4300000
1.1265	1.1265	1.1200000	.4400000
1.3702	1.3702	-.3100000	.2200000
1.6054	1.6054	-.9500000	.2800000
1.7553	1.7553	-.3700000	.2400000
1.8269	1.8269	1.0900000	.8400000
2.0263	2.0263	-.7200000	.4000000
2.3024	2.3024	-.4400000	.6500000
2.5751	2.5751	1.1200000	.7900000
2.8307	2.8307	-.8700000	1.6900000
3.2295	3.2295	.1900000	.4900000

T DS/DT ERROR

T1	T2	POLAR	ERROR
1.244	17.3394	3.4657	
2.454	1.1746514	.6968187	
4.278	1.733851	.2433355	
6.442	.2248991	.0737374	
8.811	.1880304	.0553031	
1.1265	.1585355	.0442425	
1.3702	.3576265	.0553031	
1.6054	.3871215	.0700506	
1.7553	.3576265	.0589899	
1.8269	.1401011	.0700506	
2.0263	.1548406	.0405556	

2.3024 .0995455 .0442425
2.5751 .0995455 .0442425
2.8307 .0516162 .0516162
3.2295 .2617679 .0884849

-3-
K- P (POLARIZED) ELASTIC SCATTERING BASEL POL CONVENTUON
C C.DAUM ET AL. (CERN) NUCL.PHYS. B6,273(168)
C 8 PERCENT ERROR FORWARD POINTS INTERPOLATIONS FROM OLDER DATA FOR OSDT ONLY
2.374 GEV/C, PLAB

T1	T2	POLAR	ERROR
1.1259	1.1259	.2100000	.0700000
2.518	2.518	.3100000	.0600000
4.407	4.407	.6300000	.1100000
6.602	6.602	.4100000	.4000000
9.110	9.110	.5500000	.6500000
1.1646	1.1646	-.0600000	.3200000
1.4164	1.4164	-.3400000	.3900000
1.6577	1.6577	-.6700000	.3100000
1.8833	1.8833	-.1900000	.3800000
2.0686	2.0686	.0000000	.9200000
2.3536	2.3536	.9300000	1.0200000
2.6352	2.6352	-.3400000	.8200000
3.1300	3.1300	.7500000	1.0200000
3.3119	3.3119	-.2000000	.3100000

T DS/DT ERROR

T1	T2	POLAR	ERROR
1.1259	17.6823	3.5357	
2.518	7.0499114	.8898994	
4.407	1.7678677	.2084072	
6.602	.2191869	.0718645	
9.110	.1437291	.0686781	
1.1646	.3162040	.0718645	
1.4164	.2658988	.0718645	
1.6577	.3988482	.0826442	
1.8833	.3054243	.0826442	
2.0686	.0718645	.0467120	
2.3536	.0790510	.0503052	
2.6352	.0790510	.0467120	
3.1300	.0846781	.0431181	
3.3119	.2838649	.0610849	

-3-
K- P ELASTIC
C FICENEZ TROWER ILLINOIS BERKELEY BUBBLE P-L.25,369
C FIRST RUN HAS SCANNING RAS SIGTOT 30.21-1. SIGEL 5.7--26
2.66 GEV/C, PLAB

T1	T2	DS/DT	ERROR
0.0	0.0500	32.572	1.25
0.0500	0.1000	22.2000	0.7021
0.1000	0.1500	15.4826	0.5863
0.1500	0.2000	11.5642	0.5088
0.1999999	0.2499998	8.0685110	0.4232709
0.2499998	0.2999997	5.5841045	0.3521262
0.2999997	0.3499997	3.8646812	0.2929398
0.3499997	0.3999997	2.9100695	0.2541987
0.3999997	0.4499996	1.9833717	0.2098571
0.4499996	0.4999996	1.3009291	0.1699607
0.4999996	0.5499995	0.9573131	0.1457970

-3-
K- P ELASTIC
C P.L. 19,441 ITALY BUBBLE
C
3.0 GEV/C, PLAB
T DS/DT ERROR

.03	29.9	4.4
.05	26.9	4.2
.07	20.7	2.1
.1	16.2	2.1
.14	12.9	1.2
.18	8.54	.89
.22	5.41	.67
.26	5.02	.64
.32	3.49	.39
.4	1.38	.22
.48	1.	.19
.56	.57	.14
.7	.135	.041
.9	.063	.028
1.1	.088	.034
1.3	.088	.036
1.5	.088	.034
1.8	.069	.021
2.2	.101	.025
2.8	.025	.009
3.6	.0125	.0063
4.31	.0125	.0073

-3.
C K-P ELASTIC
C BGO COLLAB (GORDON) COSTH GT .98 LOST DUE TO BIAS
C P.L. 21,117
3.46 GEV/C, PLAB

T	DS/DT	ERROR
0.1000	17.0365	3.6244
0.2000	6.8316	1.5470
0.3400	2.8814	0.6135
0.4700	1.0641	0.2746
0.6200	0.2869	0.1280
0.7600	0.1827	0.0815
0.8800	0.0836	0.0580
1.0300	0.1091	0.0890
1.2300	0.0497	0.0299
1.5700	0.0358	0.0227
1.9800	0.0359	0.0129
2.6200	0.0150	0.0047

-3.
C K-P ELASTIC
C ARGONNE NORTHWESTERN GROUP P.L. 23,171
C SIGMA ELASTIC IS 4.3+-35
4.1 GEV/C, PLAB

T1	T2	DS/DT	ERROR
0.0500	0.1000	18.1584	2.6596
0.1000	0.1500	10.7689	1.5049
0.1499999	0.1999999	9.2963257	1.3303671
0.1999999	0.2499999	5.8151140	0.9878693
0.2499999	0.2999999	3.8142233	0.7239332
0.2999999	0.3499999	3.0245523	0.5940332
0.3499999	0.3999999	1.8210917	0.4173136
0.3999999	0.4499999	1.2701550	0.3401194
0.4499999	0.4999999	0.6468720	0.2096524
0.4999999	0.5499999	0.7009296	0.2484498
0.5499999	0.5999999	0.5943556	0.1998991
0.5999999	0.6499999	0.5085235	0.1982818
0.6499999	0.6999999	0.0855996	0.0602463

-3.
C K-P ELASTIC
C L.S. SCHROEDER ET AL. IOWA BUBBLE 2000 EVENTS

C SIG EL 4.2+-3 NO BACKWARD POINTS

T1	T2	DS/DT	ERROR
.05	.1	18.05	1.52
.1	.15	12.02	1.03
.15	.2	7.81	.73
.2	.25	5.45	.58
.25	.3	4.65	.5
.3	.35	2.52	.34
.35	.4	1.79	.28
.4	.45	1.33	.23
.45	.5	.96	.19
.5	.55	.7	.16
.55	.6	.6	.15
.6	.65	.4	.12
.65	.7	.27	.1

-3.
C K-P ELASTIC
C ARGONNE NORTHWESTERN GROUP P.L. 23,171
C SIGMA ELASTIC IS 4.1+-3
5.5 GEV/C, PLAB

T1	T2	DS/DT	ERROR
0.0500	0.1000	16.4824	2.6901
0.1000	0.1500	11.8898	1.6215
0.1499999	0.1999999	9.1427689	1.3390961
0.1999999	0.2499999	5.3223600	0.8152418
0.2499999	0.2999999	3.5523329	0.6271124
0.2999999	0.3499999	2.5829763	0.5073061
0.3499999	0.3999999	2.1674757	0.3826361
0.3999999	0.4499999	1.0897331	0.2390671
0.4499999	0.4999999	0.9254036	0.2329998
0.4999999	0.5499999	0.5087662	0.1648922
0.5499999	0.5999999	0.4042131	0.1516907
0.5999999	0.6499999	0.2527688	0.0911078
0.6499999	0.6999999	0.3568947	0.1211184

-3.
C K-P ELASTIC ... FORWARD GEOM. ONE
C J. OREAR, A. ASHMORE ET AL. CORNELL, BNL P.R.L. 21,387(68)
C PAPER SAYS 15PERCENT EXTRA ERROR
DS/DT IS IN MICROBARN/GEV**2 / / / / /

T1	T2	DS/DT	ERROR
.537	.608	270.00000	40.50000
.608	.682	191.00000	28.45900
.682	.759	86.40000	16.15600
.759	.840	68.80000	14.99840
.840	.924	55.30000	11.17060
.924	1.010	28.60000	7.55040
1.009	1.099	36.70000	7.11980
1.099	1.191	42.20000	0.18680
1.190	1.284	34.10000	6.27440
1.284	1.478	22.90000	3.36630
1.478	1.678	16.20000	2.91600
1.678	2.094	5.32000	1.19700
2.094	2.522	1.61000	.69552
2.521	2.952	2.52000	1.17684

-3.
C K-P ELASTIC ... FORWARD GEOM. TWO
C J. OREAR, A. ASHMORE ET AL. CORNELL, BNL P.R.L. 21,387(68)
C PAPER SAYS 15PERCENT EXTRA ERROR
DS/DT IS IN MICROBARN/GEV**2 / / / / /
5.9 GEV/C, PLAB

T1	T2	DS/DT	ERROR
2.396	2.672	2.29000	1.28927
2.671	3.168	.83100	.42049
3.168	3.495	.77600	.39110
3.495	4.026	.14800	.15614
4.026	4.821	.14400	.10786
4.821	5.861	.0288500	.0288500

-3.
C K-P ELASTIC
C LINDENBAUM P.R.L. 11,503 3PER CENT RELATIVE ERROR AFTER ..APPROX.. .25
C 7 PER CENT NORM ERROR
7.2 GEV/C, PLAB

T	DS/DT	ERROR
.271	3.17	.27
.348	1.86	.18
.434	1.16	.13
.523	.461	.082
.619	.384	.074
.722	.105	.041
.831	.107	.043
.947	.079	.04
1.065	.06	.03
1.19	.082	.034

-3.
C K-P ELASTIC
C LINDENBAUM P.R.L. 11,503 3PER CENT RELATIVE ERROR AFTER ..APPROX.. .25
C 7 PER CENT NORM ERROR
9.0 GEV/C, PLAB

T	DS/DT	ERROR
.265	3.17	.26
.34	1.77	.17
.423	.88	.105
.51	.582	.085
.605	.31	.061
.707	.161	.045
.815	.139	.038
.929	.1	.032
1.049	.017	.016
1.176	.06	.032

-3.
C K-P ELASTIC ... FORWARD GEOM. ONE
C J. OREAR, A. ASHMORE ET AL. CORNELL, BNL P.L. 28,61(68)
C SYSTEMATIC ERROR INCL. EXTRA 5 PERCENT NORM
DS/DT IS IN MICROBARN/GEV**2 / / / / /
9.71 GEV/C, PLAB

T1	T2	DS/DT	ERROR
.691	.829	127.00000	35.68700
.829	.978	50.40000	8.31600
.978	1.137	39.90000	6.34410
1.137	1.306	18.60000	3.53400
1.306	1.483	12.90000	2.91540
1.483	1.669	7.21000	2.04764
1.669	2.063	3.01000	.75250
2.062	2.480	1.04000	.37024
2.480	3.598	.0860000	.0608880
3.597	4.764	.0175000	.0175000
4.764	6.149	.0164500	.0164500

-3.
C K-P ELASTIC
C ABCLV COLLAB CERN BUBBLE P.L. 24,434 3600 EVENTS
C FIRST 3 EVENTS LOST IN SCANNING BIAS
10.0 GEV/C, PLAB

T1	T2	DS/DT	ERROR
.06	.08	13.69	.66
.08	.1	11.98	.62
.1	.12	8.76	.53
.12	.14	8.42	.52
.14	.16	6.57	.46
.16	.18	5.62	.42
.18	.2	5.52	.42
.2	.22	4.75	.39
.22	.24	3.56	.34
.24	.28	3.	.22
.28	.32	2.17	.19
.32	.36	1.64	.16
.36	.42	1.74	.11
.42	.5	.815	.081
.5	.6	.466	.054
.6	.8	.189	.024
.8	1.	.083	.017
1.	1.4	.024	.0065
1.4	2.4	.0025	.0014

-3.
C K-P ELASTIC
C LINDENBAUM P.R.L. 15,45(65)
C

T1	T2	DS/DT	ERROR
11.08	11.08	11.08	11.08
.203	5.11	.26	.26
.266	3.3	.19	.19
.337	2.03	.13	.13
.417	1.201	.095	.095
.501	.621	.069	.069
.592	.387	.054	.054
.69	.219	.044	.044
.796	.114	.032	.032
.908	.083	.028	.028
1.027	.081	.028	.028

-3.
C K-P ELASTIC ... FORWARD GEOM. ONE
C J. OREAR, A. ASHMORE ET AL. CORNELL, BNL P.L. 28,61(68)
C SYSTEMATIC ERROR INCL. EXTRA 5 PERCENT NORM
DS/DT IS IN MICROBARN/GEV**2 / / / / /

T1	T2	DS/DT	ERROR
1.087	1.329	14.50000	5.52450
1.329	1.591	11.40000	4.19520
1.590	2.147	1.09000	.77281
2.168	3.146	.14600	.14600
3.145	4.594	.0920000	.0920000

-3.
C K-P ELASTIC
C LINDENBAUM P.R.L. 15,45(65)
C

T	DS/DT	ERROR
.22	3.91	.28
.288	2.22	.19
.366	1.443	.14
.452	.97	.107
.544	.53	.076
.643	.232	.056
.751	.083	.034
.866	.137	.038

```

-4-
$$$$$K-P TOTAL CROSS SECTIONS . . . . .
C K- P ELASTIC
C RILEY P.R. 132,2721(63)
C
**
27.41 .8
2.67
**
26.65 .9
2.88
**
27.76 .8
2.98
**
26.25 .85
3.09
**
26.75 .8
3.19
**
27. .7
3.3
**
27.15 .7
3.5
**
26.9 .7
3.71
**
25.95 .75
3.92
**
25.14 .6
4.13
**
25.84 .65
4.34
**
24.74 .7
4.76
**
24.03 .7
5.18
-3-
C K-P ELASTIC
C GALBRAITH ... READ BROOKHAVEN P.R.138,913
C
**
24. .3
6.
**
23.6 .2
8.
**
22.5 .2
10.
**
21.6 .2
12.
**
21.5 .2
14.
**
21.3 .4
16.
**
21. .8
18.
**
22.4 4.6
20.
-5-
C K- P TOTAL CROSS SECTIONS . . . . .
C INEP-CERN COLLAB., OCTOBER, 1969 . . .
C NOW PUB IN PL.
**
21.20 0.000
20.
**
20.70 0.400
25.
**
21.30 0.300
30.
**
20.80 0.300
35.
**
20.90 0.300
40.
**
20.60 0.400
45.
**
21.00 0.400
50.
**
21.50 0.600
55.
-4-
$$$$$P ELASTIC SCATTERING, DS/DT ONLY . . . . .
C P P ELASTIC
C OLD EXPT BROOKHAVEN GROUP P.R.128,1836
C SIGMA ELASTIC IS 21.4+-1.4
2.087 GEV/C, PLAB
T DS/DT ERROR
0.0075 111.1217 7.9373
0.0151 106.6570 7.4412
0.0494 65.6313 4.6135
0.1824 40.0832 2.8277
0.3629 13.5430 0.9426
-3.0000
C P P ELASTIC SMALL T
C DURNA PL 3641
C RE/IM AND SIGTOT FROM SJNP 1,379(65)
SIGTOT ERROR
45.2 1.1 MB.
RE/IM ERROR
-17 .07
2.7844 G3V/C, PLAB
T DS/DT ERROR
0.0000 102.7999 2.3440
0.0032 127.9139 7.0319

```

```

0.0043 121.8866 6.3622
0.0055 122.8911 6.0274
0.0066 111.1713 5.6925
0.0076 104.4742 5.3576
0.0116 96.1029 3.6834
0.0151 95.7680 3.6834
0.0253 88.0664 3.6834
0.0339 80.6996 3.3485
0.0656 67.9752 5.3576
0.0741 34.9150 2.3440
0.1188 42.5264 1.6743
-3.0000
C P P ELASTIC
C OLD EXPT BROOKHAVEN GROUP P.R.128,1836
C SIGMA ELASTIC IS 17.+-0.8
2.858 GEV/C, PLAB
T DS/DT ERROR
0.0186 93.5001 6.4706
0.0432 79.5883 5.5000
0.1711 33.6147 2.3294
0.3365850 9.7382421 0.6794123
0.6620836 2.3229427 0.1617648
-3.0000
C P P ELASTIC
C ANKENRANDT THESIS UCRL 17257,17763 P.R. ....
C COUNTER
2.98 GEV/C, PLAB
T DS/DT ERROR
.27 16. 4.
.39 8.9 .7
.58 3.2 .2
.68 2.1 .2
.79 1.48 .09
.94 1.06 .05
.94 1.05 .05
1.34 .63 .03
1.75 .47 .03
1.98 .43 .02
-3-
C P P ELASTIC
C CLYDE THESIS UCRL 16275 ..NOT COULOMB CORRECTED
C LOW MOMENTUM GEOMETRY
RE/IM ERROR
-.428 .047
3.0 GEV/C, PLAB
T DS/DT ERROR
.01083 121.20000 2.181600
.01617 112.30000 1.987710
.02282 105.90000 1.906200
.03072 97.01000 1.707376
.03985 91.33000 1.534344
.06163 78.41000 1.348652
.08796 66.10000 1.097260
.1186 53.16000 .914352
.1534 42.74000 .726580
.1921 32.14000 .556022
.2345 24.84000 .434700
.2803 19.06000 .331644
.3293 13.69000 .240944
-3-
C P P ELASTIC
C CLYDE THESIS UCRL 16275 ....
C HIGH MOMENTUM GEOMETRY
3.0 GEV/C, PLAB
T DS/DT ERROR
1.039 .78600 .020436
1.172 .70300 .018278
1.363 .58700 .015262
1.487 .55200 .008280
1.559 .54400 .010336
1.810 .41800 .012428
1.965 .47100 .008444
2.068 .44900 .011674
-3-
C P P ELASTIC
C OLD EXPT BROOKHAVEN GROUP P.R.128,1836
C SIGMA ELASTIC IS 14.+-0.7
3.6908 GEV/C, PLAB
T DS/DT ERROR
0.0306 89.8386 6.3004
0.0833 56.2366 3.9669
0.2897 10.6173 0.7467
0.5653257 2.6134853 0.2100121
1.1152716 0.5296975 0.0373355
-3.0000
C P P ELASTIC
C ANKENRANDT THESIS UCRL 17257,17763 P.R. ....
C COUNTER
4. GEV/C, PLAB
T DS/DT ERROR
.48 4.9 .3
.49 4.5 .3
.54 3.2 .2
.69 1.6 .1
1.11 .32 .1
1.61 .188 .007
2.23 .087 .004
2.85 .059 .002
-3-
C P P ELASTIC
C COLETTI ET AL (MILAN) CERN DOUBLE N.C. 44,419
C 2205 EVENTS SIGMA ELASTIC IS 13.5+-0.3
SIGTOT ERROR
43. 1.5 MB.
4.0 GEV/C, PLAB
T DS/DT ERROR
0.0200 81.8549 9.0103
0.0400 71.6079 7.8911
0.0550 63.5623 7.6898
0.0700 46.0726 5.0715
0.1000 39.5736 5.2180
0.1300 34.6582 4.5699
0.1500 26.5842 3.5051
0.2000 24.9561 3.8310
0.2300 18.3137 2.8114
0.2600 14.2278 2.3374
0.3800000 8.4506531 0.9167604
0.5700000 2.2285519 0.4778996
1.0499992 0.3575885 0.0766825
1.3499994 0.2053419 0.0493359
1.5899992 0.1882079 0.0452192
2.3499994 0.1086881 0.0343004
-3.0000
C P P ELASTIC SMALL T

```

C DUBNA PL 3641

C

4.8483 GEV/C, PLAB
T DS/DT ERROR
0.0000 89.2383 3.0137
0.0041 143.6519 11.7199
0.0056 122.5562 10.0456
0.0068 120.2122 6.6971
0.0085 105.6461 5.0228
0.0157 87.7315 3.3485
0.0196 86.2246 3.3485
0.0247 79.0253 3.3485
0.0300 74.0025 3.3485
0.0340 73.1654 3.3485
0.0534 65.9660 2.5114
0.0702 57.9296 2.5114
0.0715 58.4318 2.6788
0.0728 53.0742 2.1765
0.1179 39.6801 2.0091
-3.0000

C P P ELASTIC

C ANKENBRANDT THESIS UCRL 17257, 17763 P.R.....

C COUNTER

5. GEV/C, PLAB
T DS/DT ERROR
-73 .95 .06
-75 1.05 .08
-75 1.07 .08
-83 .63 .04
-84 .71 .05
1.03 .32 .03
1.04 .33 .02
1.52 .1 .01
1.76 .064 .005
1.8 .06 .003
2.8 .021 .001
3.08 .0198 .0007
3.23 .0168 .0004
3.59 .015 .001
3.64 .0164 .0004
3.64 .0147 .0007
3.8 .019 .002
-3.

C P P ELASTIC

C CLYDE THESIS UCRL 16275 ..NOT COULOMB CORRECTED

C LOW MOMENTUM GEOMETRY

RE/IN ERROR
-389 .031
5.0 GEV/C, PLAB
T DS/DT ERROR
-01081 106.50000 2.492100
-01615 96.85000 2.208180
-02281 85.89000 2.035593
-03984 74.95000 1.671385
-3292 8.66000 .267594
-2344 18.90000 .302400
-2433 17.00000 .289000
-3292 8.00000 .128000
-3.

C P P ELASTIC

C CLYDE THESIS UCRL 16275

C HIGH MOMENTUM GEOMETRY

5.0 GEV/C, PLAB
T DS/DT ERROR
-3497 6.91000 .117470
-392 5.34000 .090780
-436 4.09000 .069530
-4817 3.25000 .055250
-5289 2.47000 .044460
-5531 2.18000 .034880
-5776 1.89000 .034020
-6532 1.32000 .029040
-7316 .90900 .018180
-8125 .65000 .006500
-8957 .49900 .010479
1.01 .34800 .004872
1.098 .28300 .003962
1.248 .19400 .005268
1.402 .17800 .007164
1.559 .10000 .002400
1.883 .06170 .001481
2.385 .03140 .000534
3.25 .01950 .001170
3.648 .01480 .000918
3.893 .01600 .000880
-3.

C P P ELASTIC

C CERN BUBBLE 2512 EVENTS ALEXANDER ET AL (WEIZMANN) P.R. 154, 1284 (67)

C FORWARD BIAS ...ELASTIC SIGMA=11.99+-25

5.5 GEV/C, PLAB

T1 T2 DS/DT ERROR
0.0300 0.0400 62.8057 5.6045
0.0400 0.0500 54.3249 5.2124
0.0500 0.0600 62.8057 5.6045
0.0600 0.0700 59.8410 5.4706
0.0700 0.0800 44.7712 4.7319
0.0800 0.0900 46.9892 4.8477
0.0900 0.1000 38.7257 4.4009
0.1000 0.1100 35.1560 4.1931
0.1100 0.1200 28.9733 3.8066
0.1200 0.1300 33.4965 4.0930
0.1300 0.1400 27.0769 3.6799
0.1400 0.1500 28.9733 3.8066
0.1500 0.1600 24.5810 3.5062
0.1600 0.1700 17.0216 2.9177
0.1700 0.1800 19.6788 3.1372
0.1800 0.1900 18.2137 3.0181
0.1900 0.2000 19.6788 3.1372
0.2000 0.2100 18.7499 3.0622
0.2100 0.2200 19.3018 3.1070
0.2200 0.2300 10.4494 2.2011
0.2300 0.2400 12.1339 2.4634
0.2400 0.2500 17.0216 2.9177
0.2500 0.2600 11.2305 2.3699
0.2600 0.2700 10.4954 2.2911
0.2700 0.2800 17.0216 2.9177
0.2799997 0.2899997 7.8523512 1.9816999
0.2899997 0.2999997 6.7920341 1.8430538
0.3000 0.3100 12.1339 2.4634
0.3099997 0.3199997 7.8523512 1.9816999
0.3199997 0.3299997 8.4023256 2.0499239
0.3299997 0.3399997 8.9042969 2.1102686
0.3399997 0.3499997 8.0835056 2.0106573
0.3499997 0.3599997 5.8748884 1.7141066

0.3599997 0.3699996 5.8748884 1.7141066
0.3699996 0.3799996 7.8523512 1.9816999
0.3799996 0.3899996 3.9518452 1.4058466
0.3899996 0.3999996 5.4903469 1.6570578
0.3959996 0.4099996 3.9902468 1.4126606
0.4099996 0.4199996 3.9902468 1.4126606
0.4199996 0.4299996 4.8417225 1.5561018
0.4299996 0.4399996 5.8748884 1.7141066
0.4399996 0.4499996 1.9697008 0.9925178
0.4499996 0.4599996 3.9902468 1.4126606
0.4599996 0.4699996 1.5024509 0.8668390
0.4699996 0.4799996 2.9853802 1.2219057
0.4799996 0.4899996 1.9697008 0.9925178
0.4899996 0.4999996 1.9697008 0.9925178
-3.0000

C P P ELASTIC

C ANKENBRANDT THESIS UCRL 17257, 17763 P.R.....

C COUNTER

6.0 GEV/C, PLAB
T DS/DT ERROR
1.09 .2 .02
1.23 .123 .009
1.51 .057 .003
1.03 .029 .002
2.18 .017 .001
2.18 .017 .002
2.18 .017 .002
2.51 .0121 .0006
2.85 .0093 .0006
3.32 .0062 .0003
3.9 .0045 .0002
4.44 .0031 .0002
4.66 .0031 .0001
4.66 .003 .0002
4.67 .0032 .0001
-3.

C P P ELASTIC

C LINDBERGH P.R. L. 11, 425 (63) 3 PERCENT RELATIVE ERROR AFTER ..APPROX.. .25

C 5 PERCENT NORM ERROR

6.8 GEV/C, PLAB
T DS/DT ERROR
-023 86.8 3.4
-034 76.7 3.
-046 69.3 2.5
-063 57.1 2.1
-082 46.8 1.8
-101 41.6 1.8
-248 10.88 .44
-317 6.65 .31
-395 3.83 .21
-476 2.23 .14
-564 1.222 .092
-658 .717 .066
-758 .418 .047
-863 .234 .033
-3.

C P P ELASTIC SMALL T

C DUBNA PL 3641

C

SIGTOT ERROR

41.3 1. MB.

RE/IN ERROR

-26 .09

6.8745 GEV/C, PLAB

T DS/DT ERROR
0.0000 88.0662 2.1207
0.0033 148.3397 9.3759
0.0050 116.1939 6.6971
0.0073 107.9342 3.3485
0.0099 101.2371 2.6788
0.0127 91.9729 2.1207
0.0241 82.0389 1.8975
0.0245 81.5924 1.7859
0.0322 70.6539 1.5626
0.0324 72.3282 1.1162
0.0504 58.8224 3.4601
0.0702 54.8042 2.1207
0.0813 47.2142 2.1207
0.1072 36.0525 1.3394
0.1230 29.9135 1.2278
0.1399 29.3554 1.4510
0.1910 21.3109 1.1162
-3.

C P P ELASTIC

C CLYDE THESIS UCRL 16275 ..NOT COULOMB CORRECTED

C LOW MOMENTUM GEOMETRY

RE/IN ERROR

-339 .037
7.0 GEV/C, PLAB
T DS/DT ERROR
-01081 98.89000 2.195358
-01615 91.17000 1.951038
-02281 82.27000 1.826394
-03072 74.96000 1.611640
-03984 70.54000 1.516610
-05015 63.96000 1.368744
-06163 56.89000 1.200379
-08196 45.89000 .977457
-1186 37.48000 .794576
-1534 27.75000 .574425
-2345 15.59000 .349216
-2803 10.62000 .223020
-3293 7.73200 .172424
-3.

C P P ELASTIC

C CLYDE THESIS UCRL 16275

C HIGH MOMENTUM GEOMETRY

7.0 GEV/C, PLAB

T DS/DT ERROR
-2344 15.70000 .251200
-2002 10.70000 .174400
-3292 6.97000 .115520
-3812 4.77000 .076320
-436 3.12000 .049920
-517 1.99000 .033830
-5531 1.61000 .019320
-6277 1.01000 .012120
-679 .77200 .009264
-7052 .66500 .019285
-7853 .41100 .006165
-8175 .36600 .006222
-8677 .25400 .005588
-9524 .18700 .003366
1.039 .12600 .003402

1.402 .04670 .001027
 1.639 .02550 .001096
 1.72 .02060 .000412
 1.883 .01650 .000445
 2.048 .01280 .000384
 2.132 .01240 .000558
 2.385 .00798 .000231

-3.
 C P P ELASTIC
 C CLYDE THESIS UCRL 16275 ..NOT COULUMB LUKRECTED
 C HIGH MOMENTUM GEOMETRY

7.06 GEV/C, PLAB
 T DS/DT ERROR
 2.385 .00671 .000188
 2.814 .00465 .000256
 3.25 .00267 .000075
 3.692 .00180 .000040
 4.138 .00136 .000034
 4.587 .00107 .000041
 5.039 .00078 .000042

-3.
 C P P ELASTIC
 C CERN SPARK N.C.38.60(65)
 C

8.5 GEV/C, PLAB
 T DS/DT ERROR
 .13 24.5 .66
 .15 20.65 .61
 .17 17.78 .57
 .19 14.99 .52
 .22 11.8 .33
 .26 8.74 .28
 .3 7.21 .25
 .34 4.77 .2
 .38 2.39 .17
 .42 2.49 .15
 .46 1.79 .12
 .5 1.37 .11
 .54 1.139 .098
 .58 .8 .085
 .65 .405 .041
 .75 .278 .032
 .85 .122 .021
 .95 .059 .016
 1.05 .058 .016

-3.
 C P P ELASTIC
 C ANKENBRANDT THESIS UCRL 17257,17763 P.R.....
 C COUNTER

7.1 GEV/C, PLAB
 T DS/DT ERROR
 1.42 .053 .006
 1.58 .034 .004
 1.81 .021 .002
 2.37 .0075 .001
 2.71 .0062 .0007
 3.16 .0039 .0005
 4.36 .0015 .0002
 4.46 .0011 .0003
 4.63 .0011 .0003
 5.67 .00063 .00007

-3.

C P P ELASTIC
 C LINDENBAUM P.R.L.11,425(63) 3 PERCENT RELATIVE ERROR AFTER ..APPROX.. ..
 C 5 PERCENT NORM ERROR

8.8 GEV/C, PLAB
 T DS/DT ERROR
 .070 76.7 2.5
 .057 60.3 2.1
 .078 49.9 1.7
 .105 38.9 1.2
 .137 32.2 1.2
 .168 22.51 .92
 .263 9.5 .38
 .337 5.32 .25
 .419 2.84 .16
 .504 1.554 .102
 .597 .805 .063
 .697 .402 .04
 .803 .192 .026
 .916 .112 .02

-3.
 C P P ELASTIC SMALL T
 C DUBNA PL 3641

SIGTOT ERROR
 40.6 1.
 RE/IM FRROR
 -2 .09
 8.888 GEV/C, PLAB
 T DS/DT ERROR
 0.0000 85.3876 3.3485
 0.0017 215.9804 38.5081
 0.0033 144.8241 13.3941
 0.0045 113.8501 5.6088
 0.0056 111.3387 7.2831
 0.0077 105.4788 4.1857
 0.0087 99.6189 3.7671
 0.0102 95.0146 3.0137
 0.0134 84.2156 3.0974
 0.0233 73.1655 1.5906
 0.0279 75.7606 1.7580
 0.0337 70.8215 1.6743
 0.0758 47.5492 2.3440
 0.0794 45.7075 1.5068
 0.1084 31.0576 1.2557
 0.1257 29.6345 1.1720
 0.1535 21.3469 1.0046

-3.
 C P P ELASTIC
 C LINDENBAUM P.R.L.11,425(63) 3 PERCENT RELATIVE ERROR AFTER ..APPROX.. ..

C 5 PERCENT NORM ERROR
 10.8 GEV/C, PLAB
 T DS/DT ERROR
 .058 59.4 1.7
 .084 44.8 1.4
 .116 32.7 1.1
 .157 23.73 .76
 .204 16.56 .61
 .24 10.26 .45
 .268 8.1 .32
 .343 4.53 .21
 .427 2.38 .13
 .515 1.148 .075

.612 .548 .044
 .713 .295 .029
 .824 .138 .018

-3.
 C P P ELASTIC SMALL T
 C DUBNA PL 3641

SIGTOT ERROR
 40.1 1. MB.
 RE/IM ERROR
 -25 .07
 10.8979 GEV/C, PLAB
 T DS/DT ERROR
 0.0000 81.6373 1.2724
 0.0028 140.4385 6.6971
 0.0031 127.2443 6.6971
 0.0042 113.8502 4.6879
 0.0057 99.7863 4.2192
 0.0071 95.0984 4.2192
 0.0098 91.0802 3.6834
 0.0144 82.3070 2.9467
 0.0247 75.0072 2.4779
 0.0333 62.6149 2.0091
 0.0561 54.1123 1.7412
 0.0796 41.5888 1.6743
 0.1117 31.5432 1.5403
 0.1411 25.1810 1.5403

-3.
 C P P ELASTIC
 C LINDENBAUM P.R.L. 15.45(65)
 C

10.94 GEV/C, PLAB
 T DS/DT ERROR
 .2 13.19 .32
 .263 8.1 .23
 .333 4.66 .16
 .411 2.57 .11
 .493 1.411 .076
 .582 .641 .048
 .679 .393 .039
 .782 .178 .026
 .891 .094 .018

-3.
 C P P ELASTIC OLD LAP
 C CERN COUNTER DIDDENS...WETHERALL P.R.L.9,108(62)
 C EXTRA SYSTEMATIC ERROR INPERCENT

12.1 GEV/C, PLAB
 T DS/DT ERROR
 0.0110 87.3157 9.6047
 0.0520 57.4130 4.5930
 0.1210 26.9124 1.3456
 0.2190 12.7385 0.6369
 0.3419999 3.5285091 0.2117105

-3.
 C P P ELASTIC
 C CERN SPARK N.C.38.60(65)
 C

12.4 GEV/C, PLAB
 T DS/DT ERROR
 .13 23.43 .77
 .15 18.4 .65
 .17 16.22 .61

.19 12.44 .49
 .22 10.43 .32
 .26 7.15 .26
 .3 5.36 .22
 .34 3.6 .19
 .38 2.96 .16
 .42 2.1 .14
 .46 1.43 .11
 .5 1.16 .11
 .54 .815 .041
 .58 .506 .069
 .65 .37 .038
 .75 .178 .026
 .85 .087 .02
 .93 .031 .011
 1.1 .0196 .0061
 1.3 .0122 .0049
 1.5 .0117 .0051
 2. .004 .0015

-3.
 C P P ELASTIC
 C LINDENBAUM P.R.L.11,425(63) 3 PERCENT RELATIVE ERROR AFTER ..APPROX.. ..25
 C 5 PERCENT NORM ERROR

12.8 GEV/C, PLAB
 T DS/DT ERROR
 .049 66.2 4.8
 .073 46.7 1.7
 .12 33.9 1.4
 .166 22.9 1.1
 .224 13.93 .78
 .283 7.84 .54
 .278 6.88 .28
 .356 3.64 .17
 .443 1.92 .11
 .534 .9 .062
 .634 .42 .036
 .741 .229 .025
 .856 .091 .015

-3.
 C P P ELASTIC
 C LINDENBAUM P.R.L.11,425(63) 3 PERCENT RELATIVE ERROR AFTER ..APPROX.. ..25
 C 5 PERCENT NORM ERROR

14.8 GEV/C, PLAB
 T DS/DT ERROR
 .066 49.4 1.9
 .12 34.7 1.3
 .16 20.82 .96
 .221 10.98 .68
 .298 5.83 .47
 .386 2.4 .28
 .294 5.78 .25
 .376 2.93 .15
 .468 1.489 .089
 .564 .863 .05
 .668 .317 .03
 .781 .128 .017

-3.
 C P P ELASTIC
 C LINDENBAUM P.R.L. 15.45(65)
 C

14.93 GEV/C, PLAB
 T DS/DT ERROR

.216 11.48 .23
 .284 6.67 .16
 .36 3.48 .1
 .444 1.752 .064
 .534 .866 .039
 .631 .402 .024
 .736 .189 .016

-3.
 C P P ELASTIC OLD EXPT
 C CERN COUNTER DIDDENS...WETHERALL P.R.L.9,108(62)
 C EXTRA SYSTEMATIC ERROR 10PERCENT

15.5 GEV/C, PLAB
 T DS/DT ERROR
 0.0190 75.7370 9.0884
 0.0860 34.8849 3.4885
 0.1950 12.3933 0.7436
 0.3640000 2.9376764 0.2350140
 0.5630000 0.5049130 0.0757369

-3.
 C P P ELASTIC
 C LINDENBAUM P.R.L.11,425(63) 3 PERCENT RELATIVE ERROR AFTER ..APPROX.. .25
 C 5 PERCENT NORM ERROR

16.7 GEV/C, PLAB
 T DS/DT ERROR
 .042 56. 4.3
 .084 42.4 2.9
 .141 24.42 .98
 .204 13.24 .68
 .281 7.03 .43
 .38 2.81 .26
 .491 1.09 .17
 .308 5.06 .22
 .393 2.43 .13
 .488 1.114 .072
 .589 .471 .038
 .698 .214 .023

-3.
 C P P ELASTIC
 C CERN SPARK N.C.38,60(65)
 C

18.4 GEV/C, PLAB
 T DS/DT ERROR
 .19 12.51 .86
 .22 10.26 .6
 .26 7.35 .47
 .3 4.8 .22
 .34 3.57 .22
 .38 2.36 .17
 .42 1.71 .12
 .46 1.2 .1
 .5 1.064 .095
 .54 .602 .071
 .58 .387 .057
 .65 .277 .03
 .75 .092 .018
 .85 .041 .011
 .95 .05 .014
 1.1 .0125 .0047
 1.3 .0049 .0029
 1.5 .0021 .0021
 2. .00041 .00041
 3.6 .00015 .00015

-3.
 C P P ELASTIC OLD EXPT
 C CERN COUNTER DIDDENS...WETHERALL P.R.L.9,108(62)
 C EXTRA SYSTEMATIC ERROR 10PERCENT

18.6 GEV/C, PLAB
 T DS/DT ERROR
 0.0360 79.1435 9.4972
 0.1340 24.9927 1.4996
 0.2900000 4.7713318 0.2862799
 0.5200000 0.6058832 0.0908824
 0.7940000 0.0946693 0.0189339

-3.
 C P P ELASTIC
 C ALLABY ET AL. CERN PREPRINT SUBMITTED TO VIENNA
 C 8 PER CENT SYSTEMATIC ERROR

DS/DT IN MICROBARN/GEV**2

19.2 GEV/C, PLAB

T DS/DT ERROR
 .057548500.0000 2910.0000
 .146921400.0000 1284.0000
 .229010300.0000 618.0000
 .3288 4170.0000 250.2000
 .4461 1600.0000 96.0000
 .5112 965.0000 57.9000
 .5805 546.0000 32.7600
 .6540 295.0000 17.7000
 .7316 149.0000 8.9400
 .8133 76.0000 4.5600
 .8990 37.0000 2.2200
 .9886 18.2000 1.0920
 1.0820 10.3000 .6180
 1.1800000 6.1600000 .3696000
 1.2810000 4.3200000 .2592000
 1.3850000 3.8500000 .2310000
 1.4940000 3.4000000 .2040000
 1.6060000 3.0600000 .1836000
 1.7210000 2.7300000 .1598000
 1.8400000 2.4700000 .1362000
 1.9620000 2.1900000 .1164000
 2.0880000 1.9600000 .0960000
 2.2160000 1.7500000 .0750000
 2.3480000 .9470000 .0568200
 2.4830000 .6850000 .0411000
 2.6200000 .6040000 .0362400
 2.7610000 .5170000 .0310200
 3.0500000 .2570000 .0154200
 3.3490000 .1590000 .0095400
 3.6580000 .0854000 .0051240
 3.9760000 .0538000 .0032280
 4.3020000 .0325000 .0019500
 4.6360000 .0160000 .0009600
 4.9760000 .0108000 .0006480
 5.3230000 .0077200 .0004632
 5.6760000 .0054000 .0003240
 6.0330000 .0037500 .0002250

-3.
 C P P ELASTIC
 C LINDENBAUM P.R.L.11,425(63) 3 PERCENT RELATIVE ERROR AFTER ..APPROX.. .25
 C 5 PERCENT NORM ERROR

19.6 GEV/C, PLAB
 T DS/DT ERROR
 .116 79.4 1.7

.192 14.08 .41
 .278 6.39 .26
 .384 2.26 .13
 .517 .71 .073
 .302 5.01 .24
 .388 2.4 .13
 .483 1.089 .076
 .583 .465 .043
 .692 .156 .023
 .811 .113 .018

-3.
 C P P ELASTIC
 C LINDENBAUM P.R.L. 15,45(65)
 C

19.84 GEV/C, PLAB
 T DS/DT ERROR
 .23 9.29 .28
 .302 5.14 .19
 .383 2.64 .12
 .474 1.269 .07
 .569 .552 .042
 .674 .291 .03
 .787 .1 .018

-3.
 C P P ELASTIC
 C ALLABY ET AL. CERN PREPRINT SUBMITTED TO VIENNA
 C 8 PER CENT SYSTEMATIC ERROR
 DS/DT IN MICROBARN/GEV**2

21.1 GEV/C, PLAB
 T DS/DT ERROR
 .069639300.0000 1572.0000
 .177614400.0000 576.0000
 .2769 6000.0000 240.0000
 .3975 2150.0000 86.0000
 .5391 690.0000 27.6000
 .7012 212.0000 8.4800
 .7898 88.6000 3.5440
 .8834 40.1000 1.6040
 .9818 18.2000 .7280
 1.0850 10.1000 .4040
 1.1930000 5.2300000 .2092000
 1.3050000 4.0400000 .1616000
 1.4230000 3.1200000 .1248000
 1.5440000 2.7400000 .1096000
 1.6700000 2.5100000 .1004000
 1.8000000 2.1100000 .0844000
 1.9340000 1.7600000 .0704000

-3.
 C P P ELASTIC OLD EXPT
 C CERN COUNTER DIDDENS...WETHERALL P.R.L.9,108(62)
 C EXTRA SYSTEMATIC ERROR 10PERCENT

21.4 GEV/C, PLAB
 T DS/DT ERROR
 0.0320 59.5081 7.1410
 0.1550 14.0596 1.1248
 0.3640000 2.0925932 0.1464815
 0.6799999 0.1702232 0.0170023
 1.0549994 0.0147135 0.0044141

-3.
 C P P ELASTIC
 C LINDENBAUM P.R.L. 15,45(65)
 C

21.88 GEV/C, PLAB
 T DS/DT ERROR
 .235 8.98 .28
 .309 4.82 .18
 .392 2.25 .1
 .485 1.1 .063
 .583 .494 .038
 .691 .209 .024
 .807 .096 .016

-3.
 C P P ELASTIC
 C LINDENBAUM P.R.L. 15,45(65)
 C

24.63 GEV/C, PLAB
 T DS/DT ERROR
 .254 7.56 .34
 .334 3.74 .21
 .424 1.712 .122
 .525 .824 .074
 .632 .203 .036
 .748 .11 .028

-3.
 C P P ELASTIC OLD EXPT
 C CERN COUNTER DIDDENS...WETHERALL P.R.L.9,108(62)
 C EXTRA SYSTEMATIC ERROR 10PERCENT

26.2 GEV/C, PLAB
 T DS/DT ERROR
 0.0640 50.0718 6.3093
 0.2679999 5.9344368 0.4154105
 0.5960000 0.3285135 0.0328513
 1.0419998 0.0198698 0.0039739

-4.
 \$\$\$\$ PBAR P ELASTIC SCATTERING: DS/DT ONLY
 C POLARIZED PROTON ELASTIC SCATTERING BASEL CONVENTION
 C C.DAUM ET AL. (CERN) N.P. 86,617(68)
 C MARGINAL STATISTICS DUBIOUS NORM PROCEDURE **UNDER** ESTIMATED ERROR 15 PE

1.73 GEV/C, PLAB
 T1 T2 POLAR ERROR
 .0966181 .0966181 .2700000 .0800000
 .1062799 .1062799 .1200000 .0600000
 .1449272 .1449272 .3300000 .0400000
 .1739126 .1739126 .2800000 .0400000
 .2415453 .2415453 .3400000 .0700000
 .3864724 .3864724 .6600000 .6200000
 .4251197 .4251197 .5500000 .1700000
 .4830905 .4830905 .2900000 .1700000
 .5700468 .5700468 .4500000 .1300000
 .5893704 .5893704 .1100000 .1400000
 .7053122 .7053122 .2600000 .1200000
 .7342976 .7342976 .1900000 .1600000
 .8309157 .8309157 .6200000 .1700000
 .8985484 .8985484 .3300000 .2100000
 .9661811 .9661811 .4500000 .1900000
 1.0627992 1.0627992 .5200000 .2300000
 1.1111082 1.1111082 .1800000 .2100000
 1.2270499 1.2270499 .5700000 .5000000
 1.2560354 1.2560354 .2500000 .4000000
 1.3719771 1.3719771 .3200000 .6500000
 1.4009625 1.4009625 .3300000 .4100000
 1.5169043 1.5169043 .1600000 .1130000
 1.5458897 1.5458897 .8200000 .6100000
 1.6714932 1.6714932 .4900000 .7100000

T	DS/DT	ERROR
.0966	370.6772	182.0870
.1063	182.0870	45.5218
.1449	72.8348	5.2025
.1739	50.0739	3.9019
.2415	14.9571	1.3006
.3864724	.9104352	.4552176
.4251197	2.0159635	.3251554
.4830905	2.9263987	.3901865
.5700468	2.3411190	.3251554
.5893704	3.0564609	.3901865
.7053122	3.1067111	.3901865
.7342976	2.1460257	.3251554
.8309157	2.2110568	.3251554
.8985484	1.4957149	.2601243
.9661811	1.4957149	.2601243
1.0627992	1.1055284	.1950932
1.1111082	1.2355906	.2601243
1.2270499	.3251554	.1300622
1.2560354	.3901865	.1300622
1.3719771	.3901865	.2601243
1.4009625	.4552176	.1950932
1.5169043	.4552176	.2601243
1.5458897	.3901865	.1950932
1.6714932	.3901865	.1950932

-3-
C POLARIZED PROTON ELASTIC SCATTERING BASEL CONVENTION

C C.DAUM ET AL. (CERN) N.P. 86,6171681
C MARGINAL STATISTICS DUBIOUS NORM PROCEDURE **UNDER** ESTIMATED ERROR 15 PERCE
2.13 GEV/C, PLAB

T1	T2	POLAR	ERROR
.1303414	.1303414	.1200000	.0400000
.1303414	.1303414	.1800000	.0400000
.2215803	.2215803	.1800000	.0300000
.3779900	.3779900	.2400000	.1000000
.4692289	.4692289	.2900000	.1600000
.5735020	.5735020	.1100000	.1100000
.5865361	.5865361	.0200000	.1200000
.7299116	.7299116	.1400000	.1200000
.7950823	.7950823	.2300000	.1100000
.8863213	.8863213	.0100000	.1300000
1.0166626	1.0166626	.2700000	.1300000
1.0427309	1.0427309	.2500000	.2000000
1.2252088	1.2252088	.2400000	.1100000
1.2382430	1.2382430	.1000000	.2100000
1.4201209	1.4201209	.0700000	.2800000
1.4598233	1.4598233	.0200000	.3200000
1.6292671	1.6292671	.0300000	.3500000
1.6683695	1.6683695	.0700000	.3200000
1.8378132	1.8378132	.0800000	.2800000
1.8638815	1.8638815	.1900000	.4800000
2.0333253	2.0333253	.1600000	.2900000
2.0463594	2.0463594	.6900000	.5500000
2.2027691	2.2027691	.3900000	.7500000
2.2158032	2.2158032	.8200000	.8100000

T	DS/DT	ERROR
.1303	81.9495	16.8720
.1303	83.8777	12.5434
.2216	37.6003	2.8923
.3779900	4.0492680	.4338501
.4692289	2.6495120	.3856446
.5735020	2.4102786	.2892334
.5865361	2.0723343	.3374370
.7299116	2.6995120	.2892334
.7950823	2.4102786	.2410279
.8863213	1.8318117	.2410279
1.0166626	1.4461672	.1928223
1.0427309	1.0123170	.1928223
1.2252088	.9159059	.1446167
1.2382430	.7712891	.1446167
1.4201209	.5302613	.1446167
1.4598233	.4338501	.1446167
1.6292671	.3856446	.0964111
1.6683695	.4820557	.1446167
1.8378132	.4338501	.0964111
1.8638815	.3374370	.1446167
2.0333253	.5302613	.1446167
2.0463594	.3856446	.1928223
2.2027691	.2892334	.1928223
2.2158032	.1928223	.1446167

-3-
C POLARIZED PROTON ELASTIC SCATTERING BASEL CONVENTION

C C.DAUM ET AL. (CERN) N.P. 86,6171681
C MARGINAL STATISTICS DUBIOUS NORM PROCEDURE **UNDER** ESTIMATED ERROR 15 PERCE
2.37 GEV/C, PLAB

T1	T2	POLAR	ERROR
.1511201	.1511201	.2200000	.0400000
.1662321	.1662321	.1900000	.0400000
.3173521	.3173521	.2200000	.0900000
.4533602	.4533602	.1900000	.1300000
.5138082	.5138082	.2100000	.1400000
.6800403	.6800403	.0100000	.1100000
.9369444	.9369444	.2900000	.1100000
.9822805	.9822805	.3500000	.1800000
1.1636245	1.1636245	.4400000	.2600000
1.1938486	1.1938486	.1500000	.1500000
1.3751926	1.3751926	.0900000	.3000000
1.4658647	1.4658647	.2900000	.3600000
1.6018727	1.6018727	.2600000	.5100000
1.7227688	1.7227688	.0900000	.3200000
1.8436649	1.8436649	.0700000	.2600000
1.9645609	1.9645609	.0900000	.3100000

T	DS/DT	ERROR
.1511	83.9864	18.2941
.1662	91.1742	8.3133
.3173521	8.3154805	.8315480
.4533602	3.0767278	.4157740
.5138082	2.8688408	.4157740
.6800403	3.1183052	.3741966
.9369444	2.7441086	.3326192
.9822805	.9125605	.3326192
1.1636245	.7705777	.2494644
1.1938486	1.6630961	.2494644
1.3751926	.7068158	.2078870
1.4658647	.4989288	.1663096
1.6018727	.3326192	.1003098
1.7227688	.5405062	.1663096
1.8436649	.6236610	.1663096
1.9645609	.6736610	.1663096
2.3876971	0.0000000	.2078870
2.5690412	.0415774	.2910418

-3-
C POLARIZED PROTON ELASTIC SCATTERING BASEL CONVENTION

C C.DAUM ET AL. (CERN) N.P. 86,6171681

C MARGINAL STATISTICS DUBIOUS NORM PROCEDURE **UNDER** ESTIMATED ERROR 15 PERCENT
2.97 GEV/C, PLAB

T1	T2	POLAR	ERROR
.1633565	.1633565	.0900000	.0300000
.3471326	.3471326	.1700000	.0500000
.5309087	.5309087	.1300000	.1600000
.6330066	.6330066	.0900000	.1100000
.7759435	.7759435	.0300000	.1500000
.9597196	.9597196	.0500000	.1000000
.9597196	.9597196	.1700000	.1500000
1.1843348	1.1843348	.1300000	.2100000
1.3476914	1.3476914	.1400000	.1700000
1.4497892	1.4497892	.0500000	.2200000
1.6948240	1.6948240	.5200000	.3800000
1.7152436	1.7152436	.1200000	.2300000
2.0215371	2.0215371	.4200000	.3800000
2.0623762	2.0623762	.0900000	.2700000
2.3482501	2.3482501	.4400000	.6600000
2.6953827	2.6953827	.2300000	2.6600000
2.7362219	2.7362219	.0800000	1.0400000
3.0220958	3.0220958	.7100000	1.2300000
3.0220958	3.0220958	.9200000	.6200000
3.2875502	3.2875502	.4000000	1.3100000
3.3488089	3.3488089	.2900000	1.0600000
3.6346828	3.6346828	.2100000	3.2400000
3.8592980	3.8592980	.7600000	2.9300000

T	DS/DT	ERROR
.1634	75.6952	16.0006
.3471	19.3853	1.8462
.5309087	2.5231719	.4307854
.6330066	3.0462685	.3692447
.7759435	2.7386496	.3692447
.9597196	2.9539574	.3384743
.9597196	2.6462535	.3692447
1.1843348	1.0461932	.1846223
1.3476914	1.1692748	.1846223
1.4497892	1.1077340	.2153927
1.6948240	.5230966	.1538519
1.7152436	.8923413	.1846223
2.0215371	.4615558	.1538519
2.0623762	.5046374	.1230816
2.3482501	.7153677	.320011
2.6953827	.1220816	.1230010
2.7362219	.1844227	.1538519
3.0220958	.1230816	.1230816
3.0220958	.2153927	.0921112
3.2875502	.2153927	.2461631
3.3488089	.1538519	.1230816
3.6346828	.0923112	.1538519
3.8592980	.1230816	.2769335

-3-
C P BAR ELASTIC

C BROOKHAVEN BUBBLE DOMINGO ET AL (BOULDER GROUP)

P.L. 24,642

C SIGMA ELASTIC 15 25.6--6

T1	T2	DS/DT	ERROR
0.0180	0.0360	224.2633	8.3706
0.0360	0.0540	181.3638	7.3243
0.0540	0.0721	133.2326	5.9292
0.0721	0.0901	115.0963	5.8004
0.0901	0.1081	89.6355	4.8829
0.1081	0.1261	62.4310	3.8365

T1	T2	DS/DT	ERROR
0.1261	0.1441	56.5018	3.8365
0.1441	0.1621	47.4336	3.4878
0.1621	0.1802	34.5638	2.7902
0.1802	0.2162	23.5773	1.6392
0.2162	0.2522	12.8001	1.1858
0.2522116	0.2882414	7.2545509	0.9068189
0.2882414	0.3242712	4.1253558	0.4882871
0.3242712	0.3603010	1.0010863	0.2634457
0.3603010	0.3963308	0.5494149	0.1743882
0.3963308	0.4323606	0.9416965	0.2092659
0.4323606	0.4683904	1.3253508	0.2441435
0.4683904	0.5044202	1.1160841	0.1743882
0.5044202	0.5404500	1.1060841	0.1743882
0.5404500	0.5764800	1.1060841	0.1743882
0.5764800	0.6125100	1.1060841	0.1743882
0.6125100	0.6485400	1.1060841	0.1743882
0.6485400	0.6845700	1.1060841	0.1743882
0.6845700	0.7206000	1.1060841	0.1743882
0.7206000	0.7566300	1.1060841	0.1743882
0.7566300	0.7926600	1.1060841	0.1743882
0.7926600	0.8286900	1.1060841	0.1743882
0.8286900	0.8647200	1.1060841	0.1743882
0.8647200	0.9007500	1.1060841	0.1743882
0.9007500	0.9367800	1.1060841	0.1743882
0.9367800	0.9728100	1.1060841	0.1743882
0.9728100	1.0088400	1.1060841	0.1743882
1.0088400	1.0448700	1.1060841	0.1743882
1.0448700	1.0809000	1.1060841	0.1743882
1.0809000	1.1169300	1.1060841	0.1743882
1.1169300	1.1529600	1.1060841	0.1743882
1.1529600	1.1889900	1.1060841	0.1743882
1.1889900	1.2250200	1.1060841	0.1743882
1.2250200	1.2610500	1.1060841	0.1743882
1.2610500	1.2970800	1.1060841	0.1743882
1.2970800	1.3331100	1.1060841	0.1743882
1.3331100	1.3691400	1.1060841	0.1743882
1.3691400	1.4051700	1.1060841	0.1743882
1.4051700	1.4412000	1.1060841	0.1743882
1.4412000	1.4772300	1.1060841	0.1743882
1.4772300	1.5132600	1.1060841	0.1743882
1.5132600	1.5492900	1.1060841	0.1743882
1.5492900	1.5853200	1.1060841	0.1743882
1.5853200	1.6213500	1.1060841	0.1743882
1.6213500	1.6573800	1.1060841	0.1743882
1.6573800	1.6934100	1.1060841	0.1743882
1.6934100	1.7294400	1.1060841	0.1743882
1.7294400	1.7654700	1.1060841	0.1743882
1.7654700	1.8015000	1.1060841	0.1743882
1.8015000	1.8375300	1.1060841	0.1743882
1.8375300	1.8735600	1.1060841	0.1743882
1.8735600	1.9095900	1.1060841	0.1743882
1.9095900	1.9456200	1.1060841	0.1743882
1.9456200	1.9816500	1.1060841	0.1743882
1.9816500	2.0176800	1.1060841	0.1743882
2.0176800	2.0537100	1.1060841	0.1743882
2.0537100	2.0897400	1.1060841	0.1743882
2.0897400	2.1257700	1.1060841	0.1743882
2.1257700	2.1618000	1.1060841	0.1743882

71.7 2. MB.
3.66 GEV/C, PLAB
SIGTOT ERROR
75.4 2.
3.28 GEV/C, PLAB
***** FIRST POINT REMOVED AS SCAN BIAS..DETAILED F=0 FIGURE **NOT** USED

T1	T2	DS/DT	ERROR
0.0464	0.0928	110.3620	7.5608
0.0928	0.1392	73.1173	5.0692
0.1392	0.1856	37.3619	3.0695
0.1856	0.2320	22.5810	2.7749
0.2320499	0.2784605	6.1334562	1.4453268
0.2784605	0.3248701	4.7340889	1.2676830
0.3248701	0.4176893	1.6269779	0.5172930
0.4176893	0.6033287	0.6376204	0.2411594
0.6033287	0.7889681	0.6198978	0.2234371
0.7889681	0.9746065	0.6376204	0.2411594
0.9746065	1.1602459	1.0753670	0.2879591
1.1602459	1.3458843	0.3725547	0.1861740

-3.
C P PBAR ELASTIC
C CERN DESY BUBBLE P.L. 5,132 ..850 EVENTS
C
SIGTOT ERROR
76.3 1.8 MB.
3.6 GEV/C, PLAB
T DS/DT ERROR
.03 204.1 18.6
.05 148. 12.1
.07 125.2 10.9
.09 8.9 8.9
.11 65. 7.8

-3.
C P PBAR ELASTIC
C ROCHESTER GROUP BUBBLE P.R.L.19,265 ...600 EVENTS
C FIRST POINT OMITTED..NEXT 2 MOVED TO MIDPT ERROR BARS
3.66 GEV/C, PLAB

T1	T2	DS/DT	ERROR
0.3699999	0.9738566	0.3560589	
0.4700000	0.4621692	0.1414803	
0.5800000	0.3301209	0.0825302	
0.6900000	0.5989336	0.1108263	
0.7900000	0.7715499	0.1226163	
0.9000000	0.5989336	0.1108263	
1.0099993	0.6791056	0.1179003	
1.1099997	0.4951813	0.1013942	
1.2099991	0.2063255	0.0660241	
1.3199997	0.1650604	0.0589502	
1.4799995	0.1032806	0.0330121	
1.6899996	0.0516403	0.0212221	
1.95	.0268	.014	
2.3799992	0.0372565	0.0117900	
2.9099998	0.0207505	0.0094320	
3.6999998	0.0082530	0.0042444	
4.7599993	0.0042444	0.0030654	

-3.
C P PBAR ELASTIC
C CERN BUBBLE P.L.15,188
C SIGMA ELASTIC 19.75 +- .73
SIGTOT ERROR
71. 1. MB.
4.0 GEV/C, PLAB

T	DS/DT	ERROR
0.0190	204.6115	22.8370
0.0310	151.5981	9.2563
0.0470	125.2078	11.4495
0.0690	109.1696	10.5342
0.0820	76.9361	8.5869
0.1050	54.8055	4.4574
0.1350	37.1573	2.7687
0.1650	28.2867	2.5867
0.2150	18.8184	1.7208
0.2700000	7.6238108	0.9275255
0.4000000	1.8581181	0.3139954
0.7500000	0.6278505	0.0886741
1.0000000	0.4483054	0.0757568
1.5000000	0.1040288	0.0260580
2.2500000	0.0524678	0.0146642
2.9799995	0.0128117	0.0088745

-3.
C P PBAR ELASTIC
C BONN-DESY-MILAN..CERN BUBBLE N.C. 42,954(66) 1224 EVENTS
C SIGMA ELASTIC 16.3 +- .6
5.7 GEV/C, PLAB

T	DS/DT	ERROR
0.0225	148.9390	21.3544
0.0350	117.1980	13.7796
0.0525	102.5010	9.3906
0.0650	85.8078	7.3026
0.0800	80.3575	6.8388
0.0975	63.1522	6.6066
0.1100	58.2295	4.5760
0.1275	47.3138	4.9497
0.1400	32.8646	4.2888
0.1550	33.7387	4.4029
0.1700	22.2517	3.4759
0.1850	15.3130	2.9763
0.2000	15.8887	2.8871
0.2125	19.9678	3.5014
0.2275	13.0129	2.6113
0.2424999	8.0907745	2.1751661
0.2600000	7.2710657	2.2174759
.275	10.	2.
0.2851998	8.5415115	1.2804728
0.3203996	3.0072129	0.1013168
0.4181997	1.0322809	0.3204136
0.5099998	0.2562070	0.1795061
0.6017997	0.1397339	0.1075528
0.6935996	0.2562070	0.1795061
0.7853996	0.3664825	0.1904468
0.8771995	0.1397339	0.1075528
1.0097990	0.2595912	0.1294542
1.1933985	0.1290894	0.0643750
1.3667984	0.1290894	0.0643750
1.5503979	0.0633308	0.0404221

-3.
C P PBAR ELASTIC SCATTERING.. FORWARD GEOM. ONE
C J.DREAR A.ASHMORE ET AL. CORNELL,BNL P.R.L. 21,387(68)
C PAPER SAYS 15PERCENT EXTRA ERROR
DS/DT IN MICROBARN/GEV**2
5.8 GEV/C, PLAB

T1	T2	DS/DT	ERROR
.538	.610	136.00000	22.40000
.610	.684	190.00000	24.40000

T1	T2	DS/DT	ERROR
.684	.762	187.00000	24.68400
.761	.842	167.00000	22.71200
.843	.927	154.00000	17.71000
.927	1.014	155.00000	17.82500
1.014	1.104	94.70000	12.50040
1.104	1.196	73.30000	9.60230
1.196	1.291	68.40000	8.41320
1.291	1.389	31.90000	5.45490
1.388	1.588	22.70000	3.26880
1.588	1.794	14.50000	2.39250
1.794	2.006	8.89000	1.86690
2.006	2.222	8.67000	1.86405
2.222	2.440	8.79000	2.07444
2.440	2.660	4.70000	1.70140
2.660	2.991	4.99000	1.90119

-3.
C P PBAR ELASTIC SCATTERING.. FORWARD GEOM. TWO
C J.DREAR A.ASHMORE ET AL. CORNELL,BNL P.R.L. 21,387(68)
C PAPER SAYS 15PERCENT EXTRA ERROR
DS/DT IN MICROBARN/GEV**2
5.9 GEV/C, PLAB

T1	T2	DS/DT	ERROR
2.420	2.760	4.22000	1.19004
2.759	3.099	5.16000	1.15068
3.099	3.548	1.35000	.38205
3.548	3.988	.46000	.26380
3.988	4.413	.0440500	.0440500
4.413	5.017	.11900	.11900
5.017	5.485	.23000	.13317
5.485	6.001	.0590000	.0590000

-3.
C P PBAR ELASTIC LARGISH T
C BUBBLE CHAMBER ...P.R.L. 21,175(68) JAPANESE GROUP
C SIG ELASTIC=14.7 +- 1.5
*****NORM SEEMS TO BE BADLY OUT
6.9 GEV/C, PLAB

T1	T2	DS/DT	ERROR
.0500	.1000	103.9312	5.5757
.1000	.2000	29.3466	1.4314
.2000000	.3000000	5.614862	.4532241
.3000000	.4000000	1.6769655	.2277933
.4000000	.5000000	.3468482	.1110828
.5000000	.7000000	.0215616	.0203178
.7000000	.9000000	.1100926	.0463662
.9000000	1.1000000	.0421253	.0295221
1.1000000	1.7000000	.0075858	.0074387

-3.
C P PBAR ELASTIC
C LINDENBAUM P.R.L.11,503 3PER CENT RELATIVE ERROR AFTER ..APPROX.. .25
C 5 PERCENT NORM ERROR
7.2 GEV/C, PLAB

T	DS/DT	ERROR
.026	131.	20.
.037	84.	18.
.052	113.	18.
.07	72.	14.
.089	39.	11.1
.109	47.9	8.2
.272	4.95	.44
.349	2.01	.25
.434	.42	.12
.524	.24	.09

-3.
C P PBAR ELASTIC
C CARNegie-BNL, PRL 23, 663 (69)
C
8.0 GEV/C, PLAB

T	DS/DT	ERROR
0.046	93.30	.4275
0.0528	84.42	.4071
0.0602	76.99	.3891
0.068	70.60	.3735
0.0763	63.58	.3543
0.0851	56.90	.3355
0.0943	50.95	.3179
0.104	44.84	.2984
0.1143	39.19	.2795
0.1249	33.90	.2602
0.1361	29.43	.2427
0.1477	25.63	.2276
0.1598	21.92	.2100
0.1724	18.02	.1909
0.1855	15.54	.1775

-3.
C P PBAR ELASTIC
C CARNegie-BNL, PRL 23, 663 (69)
C GEOMETRY II

T	DS/DT	ERROR
0.1040	43.17	.3993
0.1143	38.75	.3787
0.1249	33.93	.3547
0.1361	29.15	.3292
0.1477	25.92	.3108
0.1598	21.77	.2853
0.1724	18.30	.2421
0.1855	15.71	.2433
0.1990	12.88	.2209
0.2131	10.80	.2027
0.2276	9.095	.1865

-3.
C P PBAR ELASTIC
C CARNegie-BNL, PRL 23, 663 (69)
C GEOMETRY III

T	DS/DT	ERROR
0.2067	13.23	.3146
0.2218	11.09	.2891
0.2374	9.244	.2645
0.2635	7.222	.2351
0.2702	5.944	.2139
0.2874	4.711	.1913
0.3051	3.544	.1667
0.3234	2.809	.1493
0.3422	2.153	.1317
0.3615	1.710	.1186
0.3813	1.425	.1092
0.4017	.9811	.09165
0.4226	.7602	.08132
0.4441	.5716	.072

-3.
C P PBAR ELASTIC
C CARNegie-BNL, PRL 23, 663 (69)
C GEOMETRY IV

8.0 GEV/C, PLAB
T DS/DT ERROR
0.5663 0.2021 .03753
0.5815 0.1538 .03207
0.6220 0.09534 .02194
0.6780 0.08978 .02134
0.6860 0.09536 .02086
0.7970 0.09850 .02050
0.8600 0.07622 .01962
-3.

C P PBAR ELASTIC
C LINDENBAUM P.R.L. 11,503 3PER CENT RELATIVE ERROR AFTER ..APPROX.. .25
C 5 PERCENT NORM ERROR

8.9 GEV/C, PLAB
T DS/DT ERROR
0.024 127. 6.3
0.038 114. 5.2
0.058 83.9 3.9
0.082 57. 3.1
0.11 43.9 2.8
0.138 32.6 2.2
0.172 20.5 1.6
0.264 5.23 .42
0.338 2.48 .24
0.422 .77 .13
0.508 .282 .077
0.602 .091 .045
-3.

C P PBAR ELASTIC SCATTERING.. FORWARD GEOM. ONE
C J. OREAR, A. ASHMORE ET AL. CORNELL, BNL P.L. 28,61(68)
C SYSTEMATIC ERROR INCL. EXTRA 5 PERCENT NORM
DS/DT IS IN MICROBARN/GEV**2

9.71 GEV/C, PLAB
T1 T2 DS/DT ERROR
.691 .830 93.50000 28.42400
.830 .980 49.80000 10.40820
.980 1.140 28.20000 6.73980
1.139 1.487 5.91000 2.36991
1.487 1.868 2.53000 1.21946
1.868 2.277 1.32000 .64680
2.277 2.709 1.09000 .54609
2.709 3.387 .50500 .29308
3.387 4.004 .0316000 .0316000
4.003 6.214 .0353500 .0353500
-3.

L P PBAR ELASTIC
C LINDENBAUM P.R.L. 11,503 3PER CENT RELATIVE ERROR AFTER ..APPROX.. .25
C 5 PERCENT NORM ERROR

10.0 GEV/C, PLAB
T DS/DT ERROR
0.03 122. 31.
0.049 75. 23.
0.074 82. 18.
0.105 56. 15.
0.14 27. 12.
0.176 19. 10.
-3.

C P PBAR ELASTIC
C LINDENBAUM P.R.L. 15,45(65)
C

11.88 GEV/C, PLAB
T DS/DT ERROR

.199 10.61 .87
.261 4.44 .49
.331 1.788 .278
.408 .866 .195
.49 .349 .123
-3.

C P PBAR ELASTIC
C LINDENBAUM P.R.L. 11,503 3PER CENT RELATIVE ERROR AFTER ..APPROX.. .25
C 5 PERCENT NORM ERROR

12.0 GEV/C, PLAB
T DS/DT ERROR
0.043 80.9 4.2
0.07 62.1 3.3
0.105 50.1 2.7
0.149 24.9 1.8
0.198 12.2 1.3
0.249 7.15 .95
0.268 4.09 .44
0.343 1.96 .27
0.428 .503 .132
0.517 .19 .091
-3.

C P PBAR ELASTIC
C LINDENBAUM P.R.L. 15,45(65)
C

15.71 GEV/C, PLAB
T DS/DT ERROR
0.214 6.14 .47
0.287 3.7 .48
0.364 1.893 .307
0.45 .727 .183
-3.

C P PBAR ELASTIC
C CARNEGIE BNL, PRL 23, 663 (69)
C GEOMETRY III

16.0 GEV/C, PLAB
T DS/DT ERROR
0.1110 28.51 .3018
0.1328 22.28 .2674
0.1566 16.09 .2334
0.1823 12.41 .2008
0.2102 8.860 .1702
0.2397 6.407 .1450
0.2713 4.503 .1221
0.3049 2.999 .09988
0.3406 1.975 .08172
0.3780 1.278 .06634
0.4171 0.7996 .05304
0.4588 0.4884 .04201
0.5022 0.2976 .03368
0.5476 0.1007 .02718
-3.

C P PBAR ELASTIC
C CARNEGIE BNL, PRL 23, 663 (69)
C GEOMETRY III

16.0 GEV/C, PLAB
T DS/DT ERROR
0.2397 6.017 .1098
0.2713 4.361 .1076
0.3049 2.942 .08884
0.3406 1.883 .07114
0.3780 1.267 .05900
-3.

.4174 0.8033 .04754
.4588 0.4747 .03669
.5022 0.2441 .02786
.5476 0.2007 .02505
.5948 0.1316 .02008
.6441 0.1092 .01885
.6968 0.0666 .01414
.7485 0.05836 .01513
-3.

C P PBAR ELASTIC
C CARNEGIE BNL, PRL 23, 663 (69)
C GEOMETRY III

16.0 GEV/C, PLAB
T DS/DT ERROR
0.7970 0.03413 .01370
0.9180 0.05253 .01620
1.047 0.03808 .01378
1.185 0.01859 .009744
1.331 0.001358 .004358
-3.

\$\$\$\$\$PBAR P SIGMA TOTAL ONLY

C P PBAR ELASTIC
C GALBRAITH ... READ BROOKHAVEN P.R. 138,913
C

59.3 1.1
6.
56.4 .8
8.
51.7 .8
12.
50.7 .9
14.
49.2 .8
16.
50.3 3.6
18.
-3.

C IHEP-CERN COLLABORATION
C OCTOBER 69 SERPUKHOV
C NUM PUBL IN PL 900
C

44.00 1.100
20.
46.10 0.600
25.
47.10 0.600
30.
45.50 0.700
35.
45.00 0.700
40.
44.90 0.700
45.
43.60 0.800
50.
55.
44.466 .041
2.994
44.401 .041
3.054
41.188 .041
3.11
44.156 .041
3.131
44.114 .041
3.142
43.61 .041
3.277
43.669 .041
3.303
43.138 .041
3.434
42.978 .037
3.566
42.68 .041
3.731
42.316 .041
3.900
42.136 .041
4.037
41.765 .041
4.265
41.457 .041
4.552
41.377 .037

4.783
 **
 41.165 .041
 4.966
 **
 41.171 .032
 5.221
 **
 40.878 .041
 5.526
 **
 40.848 .041
 5.824
 **
 40.075 .052
 7.835
 -3.
 C P P ELASTIC
 C GALBRAITH ... READ BROOKHAVEN P.R.138,913
 C

**
 40.6 .6
 6.
 **
 40. .6
 8.
 **
 39.9 .6
 10.
 **

39.4 .6
 12.
 **
 39.1 .6
 14.
 **
 38.7 .6
 16.
 **
 38.7 .6
 18.
 **
 38.4 .6
 20.
 **
 38.3 .6
 22.
 -4.

***** P ELASTIC RE/IM PLUS SIGTOT

C P P ELASTIC
 C CERN SPARK P.L.14,164 P.L.19,705
 C SLOPE 10.2 +-1.6
 RE/IM ERROR
 -33 .035
 SIGTOT ERROR
 40.2 .3
 10.0 GEV/C, PLAB
 -3.
 C P P ELASTIC
 C LINDENBAUM RE/IM (.02 SYSTEMATIC ERROR) AND SIGTOT ..
 C P.R.L.19,857(67)
 RE/IM ERROR
 -331 .014
 7.81 GEV/C, PLAB
 RE/IM ERROR
 -343 .007
 9.86 GEV/C, PLAB
 RE/IM ERROR
 -29 .013
 11.94 GEV/C, PLAB
 RE/IM ERROR
 -272 .013
 14.03 GEV/C, PLAB
 RE/IM ERROR
 -205 .013
 20.24 GEV/C, PLAB
 RE/IM ERROR
 -157 .018
 24.12 GEV/C, PLAB
 RE/IM ERROR
 -154 .025
 26.12 GEV/C, PLAB
 SIGTOT ERROR
 40.34 .12
 7.82 GEV/C, PLAB
 SIGTOT ERROR
 39.84 .12
 9.8 GEV/C, PLAB
 SIGTOT ERROR
 39.62 .12
 11.9 GEV/C, PLAB
 SIGTOT ERROR

39.42 .12
 14.01 GEV/C, PLAB
 SIGTOT ERROR
 39.23 .12
 16.03 GEV/C, PLAB
 SIGTOT ERROR
 39.18 .12
 17.91 GEV/C, PLAB
 SIGTOT ERROR
 39.05 .12
 20.22 GEV/C, PLAB
 SIGTOT ERROR
 39.09 .12
 20.46 GEV/C, PLAB
 SIGTOT ERROR
 38.88 .12
 22.0 GEV/C, PLAB
 SIGTOT ERROR
 38.89 .12
 24.0 GEV/C, PLAB
 SIGTOT ERROR
 38.9 .12
 26.0 GEV/C, PLAB
 -3.
 C P P ELASTIC
 C CERN SPARK P.L.14,164
 C SLOPE 10. +- .2
 RE/IM ERROR
 -33 .033
 SIGTOT ERROR
 38.9 .3
 19.33 GEV/C, PLAB
 -3.
 C CERN SPARK P.L.14,164
 C P P ELASTIC
 C SLOPE 10.2 +- .2
 RE/IM ERROR
 -32 .033
 SIGTOT ERROR
 38.8 .3
 26.42 GEV/C, PLAB
 -3.
 C P P ELASTIC
 C NIMROD SPARK P.L.14,54
 C
 SIGTOT ERROR
 40. .A
 RE/IM ERROR
 -29 .03
 7.85 GEV/C, PLAB
 -3.
 C P P ELASTIC
 C CERN P.L. 13,78
 C
 RE/IM ERROR
 -19 .09
 24.0 GEV/C, PLAB
 -3.
 ***** P ELASTIC SCATTERING POLARIZATION ONLY
 C P P ELASTIC POLARIZATION ONLY
 C BERKELEY GROUP(CHAMBERLAIN ET AL) P.R.148,1297(66)
 C SYSTEMATIC ERROR 12PERCENT *POLARIZATION TO BE ADDED TO ACTUAL ERROR

2.46 GEV/C, PLAB	T1	T2	POLAR	ERROR
	.129	.129	.431	.021
	.161	.161	.384	.014
	.196	.196	.423	.015
	.233	.233	.404	.016
	.273	.273	.396	.017
	.315	.315	.362	.02

-3.
 C P P ELASTIC POLARIZATION ONLY
 C BERKELEY GROUP(CHAMBERLAIN ET AL) P.R.148,1297(66)
 C SYSTEMATIC ERROR 12PERCENT *POLARIZATION TO BE ADDED TO ACTUAL ERROR
 3.6 GEV/C, PLAB

	T1	T2	POLAR	ERROR
	.111	.111	.151	.085
	.146	.146	.188	.07
	.185	.185	.237	.015
	.228	.228	.245	.015
	.275	.275	.255	.017
	.326	.326	.26	.02
	.38	.38	.221	.022
	.405	.405	.27	.019
	.438	.438	.283	.028
	.463	.463	.242	.022
	.524	.524	.225	.023
	.588	.588	.196	.027
	.655	.655	.147	.031
	.724	.724	.218	.036
	.796	.796	.156	.04
	.869	.869	.13	.047
	.943	.943	.171	.055
	1.02	1.02	.104	.092

-3.
 C P P ELASTIC POLARIZATION ONLY
 C BERKELEY GROUP(CHAMBERLAIN ET AL) P.R.148,1297(66)
 C SYSTEMATIC ERROR 12PERCENT *POLARIZATION TO BE ADDED TO ACTUAL ERROR
 4.34 GEV/C, PLAB

	T1	T2	POLAR	ERROR
	.215	.215	.171	.019
	.257	.257	.203	.021
	.304	.304	.203	.024
	.353	.353	.218	.028
	.405	.405	.207	.03
	.461	.461	.224	.035
	.519	.519	.131	.046
	.58	.58	.123	.044
	.643	.643	.083	.054
	.709	.709	.127	.063

-3.
 C P P ELASTIC POLARIZATION ONLY
 C BERKELEY GROUP(CHAMBERLAIN ET AL) P.R.148,1297(66)
 C SYSTEMATIC ERROR 12PERCENT *POLARIZATION TO BE ADDED TO ACTUAL ERROR
 4.85 GEV/C, PLAB

	T1	T2	POLAR	ERROR
	.138	.138	.144	.025
	.176	.176	.191	.018
	.218	.218	.211	.015
	.264	.264	.193	.017
	.314	.314	.217	.02
	.368	.368	.181	.022
	.425	.425	.194	.026

-3.

C P P ELASTIC POLARIZATION
C BOOTH ET AL ARGONNE, CHICAGO ZGS EXPT 1968 AUG STILL IN PROGRESS
C 10 PERCENT NDR* ERROR AGREES WITH 4.84

5.15 GEV/C, PLAB

T1	T2	POLAR	ERROR
.217	.217	.219	.013
.279	.279	.216	.012
.349	.349	.175	.0105
.406	.406	.188	.018
.487	.487	.172	.016
.555	.555	.124	.021
.645	.645	.123	.026
.737	.737	.151	.031
.823	.823	.13	.04
.916	.916	.135	.052
1.02	1.02	.199	.0585
1.12	1.12	.24	.069
1.23	1.23	.26	.082
1.35	1.35	.169	.1
1.45	1.45	.25	.1
1.57	1.57	.185	.133
1.74	1.74	.33	.13

C P P ELASTIC POLARIZATION ONLY

C BERKELEY GROUP (CHAMBERLAIN ET AL) P.R.148,1297(66)

C SYSTEMATIC ERROR 12PERCENT *POLARIZATION TO BE ADDED TO ACTUAL ERROR

5.9 GEV/C, PLAB

T1	T2	POLAR	ERROR
.112	.112	.089	.1
.147	.147	.152	.024
.186	.186	.166	.019
.229	.229	.153	.019
.277	.277	.178	.022
.329	.329	.185	.027
.384	.384	.136	.03
.398	.398	.226	.054
.444	.444	.138	.034
.459	.459	.201	.059
.523	.523	.145	.025
.591	.591	.008	.062
.662	.662	.231	.007
.736	.736	.206	.1
.814	.814	.1	.121
.914	.914	.041	.138

C P P ELASTIC

C CERN POLARIZATION P.L.24,77(67)

C FIVE PERCENT RELATIVE ERROR

6.0 GEV/C, PLAB

T1	T2	POLAR	ERROR
.109	.109	.124	.069
.136	.136	.041	.034
.166	.166	.122	.025
.198	.198	.138	.016
.233	.233	.101	.014
.271	.271	.117	.014
.312	.312	.095	.015
.355	.355	.141	.017
.4	.4	.117	.018
.448	.448	.083	.019
.499	.499	.108	.023
.551	.551	.063	.029

.606	.606	.135	.041
.665	.665	.062	.08
.723	.723	.092	.164

C P P ELASTIC POLARIZATION ONLY

C BERKELEY GROUP (CHAMBERLAIN ET AL) P.R.148,1297(66)

C SYSTEMATIC ERROR 12PERCENT *POLARIZATION TO BE ADDED TO ACTUAL ERROR

7.0 GEV/C, PLAB

T1	T2	POLAR	ERROR
.152	.152	.112	.049
.195	.195	.177	.031
.242	.242	.196	.028
.295	.295	.177	.031
.352	.352	.262	.037
.413	.413	.16	.042
.461	.461	.169	.027
.48	.48	.157	.053
.529	.529	.117	.032
.55	.55	.077	.084
.602	.602	.085	.042
.679	.679	.162	.053
.759	.759	.002	.074

C P P ELASTIC POLARIZATION

C KANAVEIS ET AL JINR

C JFEP 18,874(64)

9.3 GEV/C, PLAB

T1	T2	POLAR	ERROR
-.28	-.28	.02	.06

C P P ELASTIC

C CERN POLARIZATION P.L.24,77(67)

C FIVE PERCENT RELATIVE ERROR

10.0 GEV/C, PLAB

T1	T2	POLAR	ERROR
.102	.102	.074	.072
.129	.129	.059	.03
.159	.159	.058	.023
.192	.192	.097	.015
.228	.228	.093	.013
.267	.267	.071	.013
.309	.309	.082	.014
.354	.354	.093	.017
.401	.401	.081	.018
.452	.452	.067	.019
.505	.505	.074	.023
.561	.561	.067	.028
.62	.62	.077	.037
.681	.681	.117	.046
.745	.745	.08	.045

C P P ELASTIC

C CERN POLARIZATION P.L.24,77(67)

C FIVE PERCENT RELATIVE ERROR

12.0 GEV/C, PLAB

T1	T2	POLAR	ERROR
.103	.103	.034	.055
.131	.131	.032	.023
.163	.163	.036	.018
.199	.199	.042	.013
.237	.237	.066	.012
.279	.279	.064	.013

.324	.324	.001	.014
.373	.373	.055	.017
.424	.424	.031	.019
.479	.479	.046	.02
.537	.537	.073	.023
.629	.629	.066	.026
.762	.762	.002	.056

C P P ELASTIC

C R. T. BELL ET AL. CERN, ORSAY, PISA PRELIM RESULTS (VIENNA)

C EXTRA 5 PERCENT TARGET POLAR SCALE ERROR

14.0 GEV/C, PLAB

T1	T2	POLAR	ERROR
.1	.2	.054	.011
.2	.3	.059	.007
.3	.4	.055	.007
.4	.5	.045	.008
.5	.6	.029	.009
.6	.7	.017	.011
.7	.8	.013	.017
.8	.9	.018	.024
.9	1.1	.023	.033
1.1	1.1	-.01	.05
1.1	1.2	-.11	.06

\$\$\$ P ELASTIC, LARGE ANGLE SCATTERING ONLY

C P P ELASTIC

C CLYDE THEIX UCRL 16275 .NUI CUULUMB CORRECTED

C RANDOM 90 DEGREES VALUES INCLUDES SYSTEMATIC ERROR (I THINK)

PLAB T1(00G) DS/DT ERROR

3.	2.068	.44900	.01167
3.2	2.248	.24900	.00946
4.	2.974	.06700	.00362
4.6	3.505	.02500	.00137
5.	3.893	.01600	.00088
6.	4.817	.00335	.00018

C P P ELASTIC AT 90 DEGREES .CMS..

C AKERLOF ET AL ARGONNE 7GS P.R.L.17,1105 AND P.R.159,1138

C EXTRA OVERALL (I.E. SAME ALL POINTS) SYSTEMATIC ERROR 7 PERCENT

DS/DT IS IN MICROBARN/GEV**2

PLAB	T1(00G)	DS/DT	ERROR
5.0000	3.8927	13.7100	0.3008
5.1000	3.9849	12.4500	0.4108
5.2000	4.0772	10.9300	0.3388
5.3000	4.1695471	9.769999	0.351718
5.4000	4.2617562	8.149999	0.2526498
5.5000	4.3544188	7.069999	0.2403799
5.6000	4.4469242	6.319999	0.1959199
5.7000	4.5394783	5.149999	0.1699499
5.8000	4.6320734	4.569999	0.1508099
5.9000	4.7247076	3.699999	0.1273999
6.0000	4.8173857	3.179999	0.0985799
6.1000	4.9100952	2.799999	0.1035999
6.2000	5.0028410	2.279999	0.0850999
6.4000	5.1884346	1.819999	0.0673400
6.6000	5.3741493	1.250000	0.0587500
6.8000	5.5599747	0.900000	0.0423000
7.0000	5.7459078	0.706000	0.0289600
7.2000	5.9319286	0.545999	0.0218400
7.4000	6.1180372	0.396000	0.0190800
7.6000	6.3042173	0.304000	0.0164160

7.8000	6.4904814	0.244999	0.0110250
8.0000	6.6768141	0.204000	0.0091800
8.1000	6.7699966	0.156999	0.0061230
8.2000	6.8632097	0.156999	0.0069080
8.3000	6.9564228	0.139000	0.0052820
8.4000	7.0496578	0.138000	0.0042300
8.6000	7.2361546	0.110000	0.0050600
8.8000	7.4227180	0.087100	0.0041808
9.0000	7.6093264	0.066700	0.0030682
9.2000	7.7959785	0.062899	0.0027047
9.4000	7.9826660	0.053200	0.0028196
9.6000	8.1693945	0.045300	0.0022197
9.8000	8.3561011	0.038200	0.0019007
10.0000	8.5429668	0.034400	0.0016954
10.2000	8.7298031	0.031000	0.0015264
10.4000	8.9167118	0.027800	0.0017784
10.6000	9.1035690	0.024600	0.0011808
10.8000	9.2904882	0.020500	0.0010045
11.0000	9.4774427	0.018800	0.0010340
11.2000	9.6644123	0.016600	0.0008964
11.4000	9.8514137	0.012900	0.0006966
11.6000	10.0384321	0.011900	0.0006184
11.8000	10.2254677	0.009400	0.0005076
12.0000	10.4125309	0.008600	0.0004655
12.2000	10.5996037	0.006900	0.0003705
12.4000	10.7866964	0.006700	0.0003650
12.6000	10.9738188	0.0054500	0.0003433
12.8000	11.1609459	0.0048800	0.0002782
13.0000	11.3480940	0.0040900	0.0002413
13.2000	11.5352497	0.0039300	0.0002740
13.4000	11.7224283	0.0028100	0.0001602

C P P ELASTIC

C BROOKHAVEN COUNTER EXPT..OREAR ET AL P.R.152,1162

C LARGE T

DS/DT IS IN MICROBARN/GEV**2

8.0 GEV/C, PLAB

T	DS/DT	ERROR
1.74	14.	1.4
2.23	3.02	.0
2.5	4.99	.59
2.72	3.47	.58
3.	2.27	.31
3.5	1.54	.26

C P P ELASTIC

C BROOKHAVEN COUNTER EXPT..OREAR ET AL P.R.152,1162

C LARGE T

DS/DT IS IN MICROBARN/GEV**2

12.0 GEV/C, PLAB

T	DS/DT	ERROR
1.2	16.	1.5
1.5	8.62	.86
2.	5.31	.69
2.4	2.19	.54
2.5	1.99	.66

C P P ELASTIC AT LARGE ANGLE

C ALLABY.....WETHERALL (CERN) CERN 68-7 PAGE 580 P.L. 27,149(168)

C COMMON SCALE ERROR 7...12 GEV OF SEVEN PERCENT

DS/DT IS IN NANOBARN/GEV**2

7.1 GEV/C, PLAB

T DS/DT ERROR
 2.9194 4401.2026 176.0481
 3.0977 3766.3103 150.6524
 3.3713 3733.2652 109.5348
 3.6516 2152.1773 86.0871
 3.9379 1665.7852 66.6314
 4.3277 1263.3281 50.5331
 4.8250 894.2297 35.7692
 5.8389 672.5554 26.9022

-3.
 C P P ELASTIC AT LARGE ANGLE
 C ALLABY.....WETHERALL (ICERN) CERN 68-7 PAGE 580 P.L. 27,149(68)
 C COMMON SCALE ERROR 7...12 GEV OF SEVEN PERCENT
 DS/DT IS IN NANOBARNS/GEV**2
 8.1 GEV/C, PLAB
 T DS/DT ERROR
 1.583916724.1916 668.9677
 1.818711239.1765 449.5671
 2.0672 8399.2194 335.9688
 2.3265 5911.9368 236.4775
 2.6020 4464.1155 178.5646
 2.8869 3081.2606 123.2504
 3.1824 2199.5746 87.9830
 3.4850 1852.4687 74.0987
 3.5917 1470.0954 58.8038
 3.9089 1012.5468 40.5019
 4.2339 721.1264 28.8451
 4.5659 543.8611 21.7544
 5.0178 348.9620 13.9585
 5.5944 275.6429 11.0257
 6.7700 183.7619 7.3505

-3.
 C P P ELASTIC AT LARGE ANGLE
 C ALLABY.....WETHERALL (ICERN) CERN 68-7 PAGE 580 P.L. 27,149(68)
 C COMMON SCALE ERROR 7...12 GEV OF SEVEN PERCENT
 DS/DT IS IN NANOBARNS/GEV**2
 9.2 GEV/C, PLAB
 T DS/DT ERROR
 1.8239 7084.3060 283.3722
 2.0944 5391.8097 215.6724
 2.3804 4142.5862 165.7034
 2.6814 3135.1479 125.4059
 2.9963 1950.4005 78.0160
 3.3744 1345.2804 54.6112
 3.6647 922.8135 36.9125
 3.8980 681.0283 27.2411
 4.1360 496.4656 19.8586
 4.5013 315.1267 12.6051
 4.8756 212.7710 8.5108
 5.2579 161.1095 6.4444
 5.7782 117.4270 4.6971
 6.4422 89.6217 3.5849
 7.7960 84.7054 3.3882

-3.
 C P P ELASTIC AT LARGE ANGLE
 C ALLABY.....WETHERALL (ICERN) CERN 68-7 PAGE 580 P.L. 27,149(68)
 C COMMON SCALE ERROR 7...12 GEV OF SEVEN PERCENT
 DS/DT IS IN NANOBARNS/GEV**2
 10.1 GEV/C, PLAB
 T DS/DT ERROR
 2.0205 4343.3150 173.7326
 2.2183 4059.5808 162.3832

2.4239 3266.5803 130.6632
 2.6370 2480.8549 99.2342
 2.8575 1826.0838 73.0434
 3.0850 1356.8312 54.2732
 3.3193 958.1484 38.3259
 3.5600 718.7932 28.7517
 3.8070 468.5251 18.7410
 4.0598 349.9388 13.9976
 4.3182 250.9956 10.0398
 4.5818 185.5185 7.4207
 4.8665 122.6605 4.9064
 5.4011 93.2685 3.7307
 5.8247 67.9507 2.7180
 6.4011 53.1820 2.1273
 7.1367 43.6514 1.7461
 8.6364 37.5402 1.5016

-3.
 C P P ELASTIC AT LARGE ANGLE
 C ALLABY.....WETHERALL (ICERN) CERN 68-7 PAGE 580 P.L. 27,149(68)
 C COMMON SCALE ERROR 7...12 GEV OF SEVEN PERCENT
 DS/DT IS IN NANOBARNS/GEV**2
 11.1 GEV/C, PLAB
 T DS/DT ERROR
 2.2392 3367.7710 134.7108
 2.5712 2179.5321 87.1813
 2.9224 1319.5360 52.7814
 3.2918 783.1873 31.3275
 3.6785 431.2194 17.4888
 4.0813 236.3348 9.4534
 4.4991 146.3963 5.8559
 4.7855 103.0026 4.1201
 5.0776 72.1478 2.8859
 5.5261 50.6150 2.0246
 5.9856 37.5510 1.5020
 6.4549 30.5266 1.2211
 7.0938 25.2090 1.0084
 7.9089 21.9923 .8797
 9.5709 19.9572 .7983

-3.
 C P P ELASTIC AT LARGE ANGLE
 C ALLABY.....WETHERALL (ICERN) CERN 68-7 PAGE 580 P.L. 27,149(68)
 C COMMON SCALE ERROR 7...12 GEV OF SEVEN PERCENT
 DS/DT IS IN NANOBARNS/GEV**2
 12.1 GEV/C, PLAB
 T DS/DT ERROR
 2.4580 2105.1434 84.2057
 2.8224 1166.2016 46.6481
 3.2079 624.3664 24.9747
 3.6135 331.3204 13.2528
 4.0379 177.0234 7.0809
 4.4800 96.2864 3.8515
 4.9387 54.6620 2.1865
 5.2530 42.7009 1.7080
 5.5738 33.7899 1.3516
 6.0660 21.3505 .8540
 6.5704 17.8220 1.0693
 7.0856 15.0709 .9043
 7.7869 11.4926 .6890
 8.6817 10.3463 .6268
 10.5060605 9.9276650 .5956599

-3.
 C P P ELASTIC

C CERN ALLABY ET AL P.L. 25,156
 C AT LARGE ANGLECOMPARES OTHER DATA
 +++++C DATA RESCALED AS PER CERN 68-7 PAGE 588
 DS/DT IN NANOBARNS/GEV**2 AND TO BE INCREASED BY 7 PER CENT
 +++++THESE 4 OLD EXPTS HAD INDIV 3 PERCENT(SAME ALL PTS EACH PLAB)
 + OVERALL(SAME ALL PLAB) ERROR 7 PERCENT
 14.25 GEV/C, PLAB
 T DS/DT ERROR
 7.6268520 3.8046217 0.1154436
 8.4425602 2.9413033 0.0953665
 9.7020950 2.1884090 0.0702700
 12.5180 1.6614 0.0452
 -3.0000
 C P P ELASTIC
 C CERN ALLABY ET AL P.L. 25,156
 C AT LARGE ANGLECOMPARES OTHER DATA
 +++++C DATA RESCALED AS PER CERN 68-7 PAGE 588
 DS/DT IS IN NANOBARNS/GEV**2 AND TO BE INCREASED BY X 1.07
 16.9 GEV/C, PLAB
 T DS/DT ERROR
 9.1388550 0.8419603 0.0167554
 9.8695021 0.6618397 0.0251332
 10.3645 0.5990 0.0209
 11.1175 0.5069 0.0168
 11.6255 0.4315 0.0126
 12.3950 0.3854 0.0168
 12.9121 0.3602 0.0126
 13.6924 0.3393 0.0168
 14.9997 0.3142 0.0209
 -3.0000
 C P P ELASTIC
 C CERN ALLABY ET AL P.L. 25,156
 C AT LARGE ANGLECOMPARES OTHER DATA
 +++++C DATA RESCALED AS PER CERN 68-7 PAGE 588
 DS/DT IS IN NANOBARNS/GEV**2 AND TO BE INCREASED BY X 1.06
 19.3 GEV/C, PLAB
 T DS/DT ERROR
 9.6871662 0.2484365 0.0105640
 11.0671 0.1526 0.0095
 12.7841 0.0984 0.0073
 17.2483 0.0685 0.0062
 -3.0000
 C P P ELASTIC
 C CERN ALLABY ET AL P.L. 25,156
 C AT LARGE ANGLECOMPARES OTHER DATA
 +++++C DATA RESCALED AS PER CERN 68-7 PAGE 588
 DS/DT IS IN NANOBARNS/GEV**2 AND TO BE INCREASED BY X 1.05
 21.3 GEV/C, PLAB
 T DS/DT ERROR
 11.3448 0.0723 0.0059
 12.5824 0.0444 0.0036
 14.1734 0.0332 0.0026
 18.1219 0.0200 0.0030
 -3.0000
 C P P ELASTIC
 C OREAR ET AL P.R.138,165(65) LARGE ANGLE LOTS OF PLAB
 C 20 PERCENT SYSTEMATIC ERROR..ACTUAL ERROR ONLY STATISTICAL
 DS/DT IS IN NANOBARNS/GEV**2
 PLAB T DS/DT ERROR
 18.9000 2.2500 599.5132 59.9513
 13.0000 2.2800 1694.2577 169.4252
 11.0000 3.1500 1007.7024 100.7702

16.1000 3.5000 225.7473 22.5747
 24.9000 3.8000 32.3968 3.2397
 13.1000 4.3000 71.3894 7.1389
 18.1000 4.3000 28.9532 2.8953
 11.1000 6.0000 26.3908 2.6391
 15.7000 6.0000000 5.8413286 0.5841326
 21.7000 6.0000000 1.9270668 0.1927066
 31.5000 6.0000000 0.7731818 0.0773181
 12.9000 7.7999992 5.4878998 0.5487897
 18.2000 7.7999992 0.9763192 0.0976319
 25.0000 7.7999992 0.2720054 0.0272005
 11.4000 9.9000 14.2866 1.4287
 14.200010.0000000 2.5694456 0.2569444
 20.900010.0000000 0.1622082 0.0162208
 28.700010.0000000 0.0356417 0.00356163
 30.700011.1144444 0.0100536 0.00100508
 19.400011.5599995 0.1010785 0.0101618
 16.000012.0099993 0.6834976 0.0683497
 23.800012.4599991 0.0246161 0.0024616
 21.900013.9399996 0.0220236 0.00220236
 18.000014.5000000 0.1430643 0.0143064
 26.600015.0599995 0.0038078 0.00038078
 26.200018.7699980 0.0013723 0.00013723
 21.900019.6499939 0.0164379 0.00164379
 31.800020.3799986 0.0001996 0.00001996
 30.900024.3899994 0.0002458 0.00002458

***NEUTRON ANTIPROTON SCATTERING, TOTAL CROSS SECTION ONLY
 C PBAR NEUTRON ELASTIC SCATTERING
 C THEP-CERN COLLABORATION, OCTOBER, 1969
 C NOW PUBLISHED IN PHYS. LETTERS 30B . . .
 **
 46.00 1.700 MB.
 20. GEV/C, PLAB
 **
 45.30 1.100
 25.
 **
 44.90 1.100
 30.
 **
 45.90 1.100
 35.
 **
 43.2 1.100
 40.
 **
 44.6 1.100
 45.
 **
 44.1 1.200
 50.
 -4.
 ***NEUTRON PROTON ELASTIC SCATTERING
 C N P ELASTIC
 C M. PERL ET AL. SLAC PREPRINT, FALL 1969
 C 2.0 TO 7.0 GEV/C . . .
 -4.

LEGAL NOTICE

This report was prepared as an account of Government sponsored work. Neither the United States, nor the Commission, nor any person acting on behalf of the Commission:

- A. Makes any warranty or representation, expressed or implied, with respect to the accuracy, completeness, or usefulness of the information contained in this report, or that the use of any information, apparatus, method, or process disclosed in this report may not infringe privately owned rights; or*
- B. Assumes any liabilities with respect to the use of, or for damages resulting from the use of any information, apparatus, method, or process disclosed in this report.*

As used in the above, "person acting on behalf of the Commission" includes any employee or contractor of the Commission, or employee of such contractor, to the extent that such employee or contractor of the Commission, or employee of such contractor prepares, disseminates, or provides access to, any information pursuant to his employment or contract with the Commission, or his employment with such contractor.