

moments

| Type                 | Target  | x      | G1      | stat    | syst    | tot    | source  |
|----------------------|---|--------|---------|---------|---------|--------|---|
| CN                   | D   | <0.316 | 0.02797 |         |         | 0.0099 | PSI plot fit/MapleV integral*   |
|                      |   | >0.316 | 0.03156 | 0.00070 |         | 0.0026 | a1a2_fit8.sdc "duality_d2"  |
|                      |   | 0<x<1  | 0.05953 |         | 0.00249 | 0.0102 |   |
|                      |   | 0<x<1  | 0.10300 | 0.00100 | 0.00700 | 0.0071 | K. S. Moments draft   |
|                      |   | 0<x<1  | 0.142   |         |         | 0.0179 |   |
| E155                 | Theory gA/6<br>NNLO corrections<br>NNLO NS                          |        | 0.212   |         |         |        | Rev.P.P. 2004 p. 864  |
|                      |   |        | 0.731   |         |         |        | J.McCarthy et al PRD 54, 23   |
|                      |   |        | 0.155   |         |         |        | *fit: j:\e01006\model\rss_A1p<br>*Integral:fit_g1-dis_rss.mws (<br>*e-mail sent 11/27/07 and 11 |
| E143                 | Theory<br>NNLO(5 GeV <sup>2</sup> )<br>NS NNLO(5 GeV <sup>2</sup> ) |        | 0.212   |         |         |        |   |
|                      |   |        | 0.865   |         |         |        |   |
|                      |   |        | 0.183   |         |         |        | S. Bass RMP 77,1257 (05)  |
| Effective $\alpha_S$ | $\alpha_S/\pi = 1-(6/g_A)\Gamma(1(p-n))$                            |        | 0.210   |         |         |        |   |
|                      |   |        | 0.816   |         |         |        | agrees with P. Grenier thesis   |
|                      |   |        | 0.171   |         |         |        |   |
|                      |   |        | 0.331   |         |         | 0.042  |   |

moments

91 (96)  
17.pdw; g1 fit.txt  
(spin)  
/28/07

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