

We wish to give here an extremely brief summary of the status of extended Regge trajectories<sup>1)</sup>. We shall present a more detailed report after the new 1990 Particle Data Tables are out.

There are 10 resonances (5 mesons, 5 baryons) whose spin-parity ( $J^P$ ) were unknown and predicted in our paper in 1978. Of these ten, five (four with confidence) were assigned negative  $j$  values. Nine of these  $J^P$  assignments are confirmed by the 1988 Tables,<sup>2)</sup> and the remaining one is wrong. In the table below we set out the comparison:

| 1976                            | Predicted $J^P(j)$              | 1988                                       |
|---------------------------------|---------------------------------|--|
| $D(1285) 0^+(A)^+$              | $1^+(1)$                        | $f_1(1285) 0^+(1^{++})$                    |
| $E(1420) 0^+(A)^+$              | $1^+(-2)$                       | $f_1(1420) 0^+(1^{++})$                    |
| $A_4(1900) 1^-(?)$              | $2^-(-3)$                       | $\pi_2(2100) 1^-(2^{-+})$                  |
| $\rho(2100) ?$                  | $3^+(-4)$                       | $\rho_2(2250) 1^+(3^{--})$                 |
| $K_N(1700) \frac{1}{2}(?)$      | $1^-(-2)$                       | $K^*(1715) \frac{1}{2}(1^-)$               |
| $N(2650) \frac{1}{2}(?^-)$      | $\frac{13}{2}^+(\frac{13}{2})$  | $N(2700) \frac{1}{2}(\frac{13}{2}^+)$      |
| $\Delta(2160) \frac{3}{2}(?)$   | $\frac{7}{2}^-(\frac{7}{2})$    | $\Delta(2200) \frac{3}{2}(\frac{7}{2}^-)$  |
| $\Delta(2850) \frac{3}{2}(?^+)$ | $\frac{15}{2}^+(-\frac{17}{2})$ | $\Delta(2950) \frac{3}{2}(\frac{15}{2}^+)$ |
| $\Lambda(2350) 0(?)$            | $\frac{9}{2}^+(\frac{9}{2})$    | $\Lambda(2350) 0(\frac{9}{2}^+)$           |
| $\Xi(1820) \frac{1}{2}(?)$      | $\frac{3}{2}^-(\frac{3}{2})$    | $\Xi(1820) \frac{1}{2}(\frac{3}{2}^-)$     |

We note that not only have data changed considerably during the 12 years, but all mesons have been renamed!

References

1. Roger Pearse, George Sparling and Tim Sheung Tsun, J. Phys. A 11 (1978) L231-L235.
2. Particle Properties Data Booklet, April 1988.

Roger Pearse  
Tim Sheung Tsun