

# EXOTIC BARYONS

Minimum quark content:  $\Theta^+ = uud d\bar{s}$ ,  $\Phi^{--} = ssd d\bar{u}$ ,  $\Phi^+ = ssu u\bar{d}$ .

**$\Theta(1540)^+$**

$$I(J^P) = 0(?^?)$$

It is difficult to deny a place in the Summary Tables for a state that six experiments claim to have seen. Nevertheless, we believe it reasonable to have some reservations about the existence of this state on the basis of the present evidence.

$$\text{Mass } m = 1539.2 \pm 1.6 \text{ MeV}$$

$$\text{Full width } \Gamma = 0.90 \pm 0.30 \text{ MeV}$$

$NK$  is the only strong decay mode allowed for a strangeness  $S=+1$  resonance of this mass.

<b><math>\Theta(1540)^+</math> DECAY MODES</b>	Fraction ( $\Gamma_i/\Gamma$ )	$p$ (MeV/c)
$KN$	100%	270