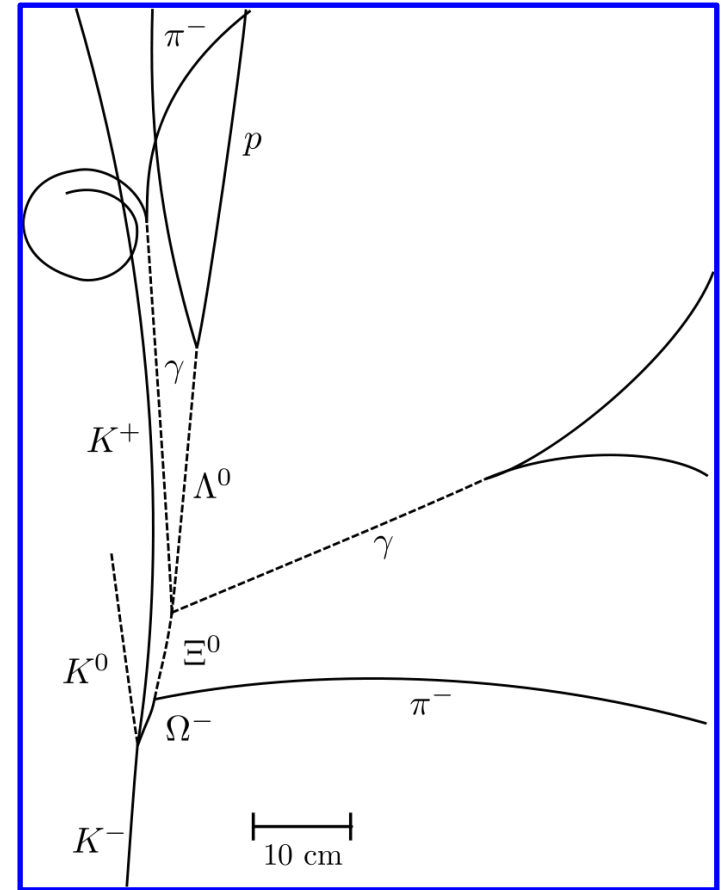
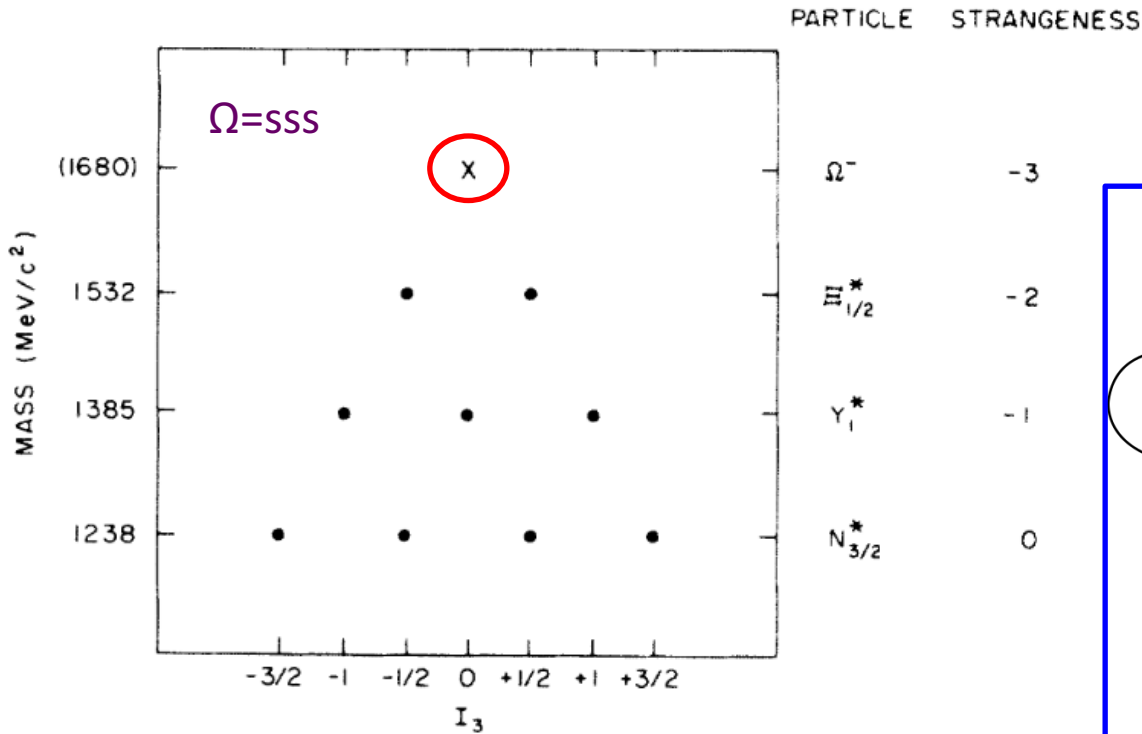
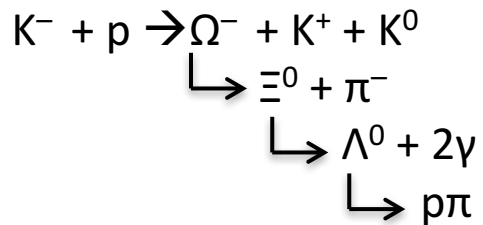


The Discovery of the Ω^- baryon



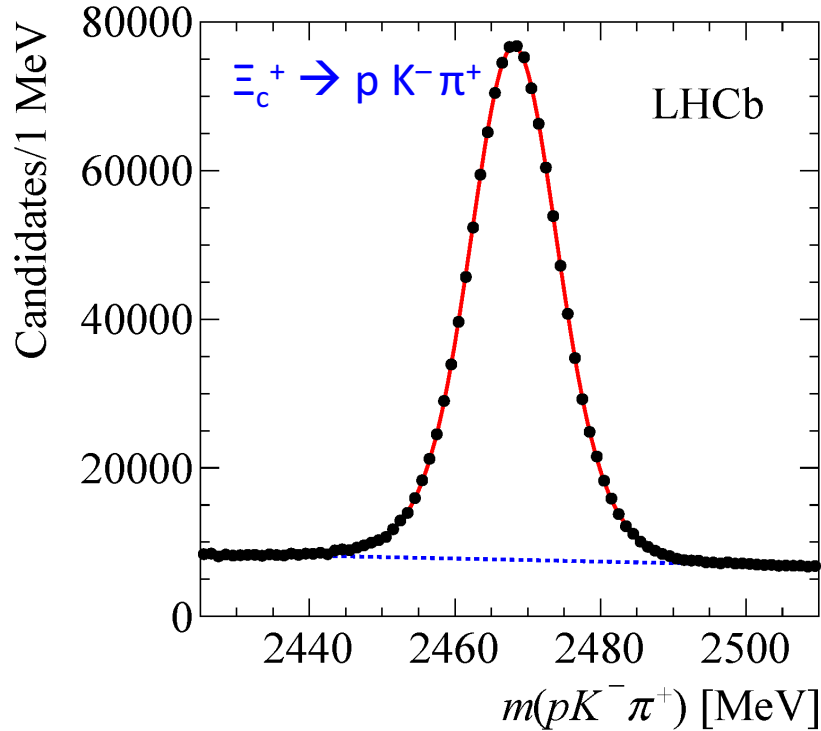
Discovered in 1964:



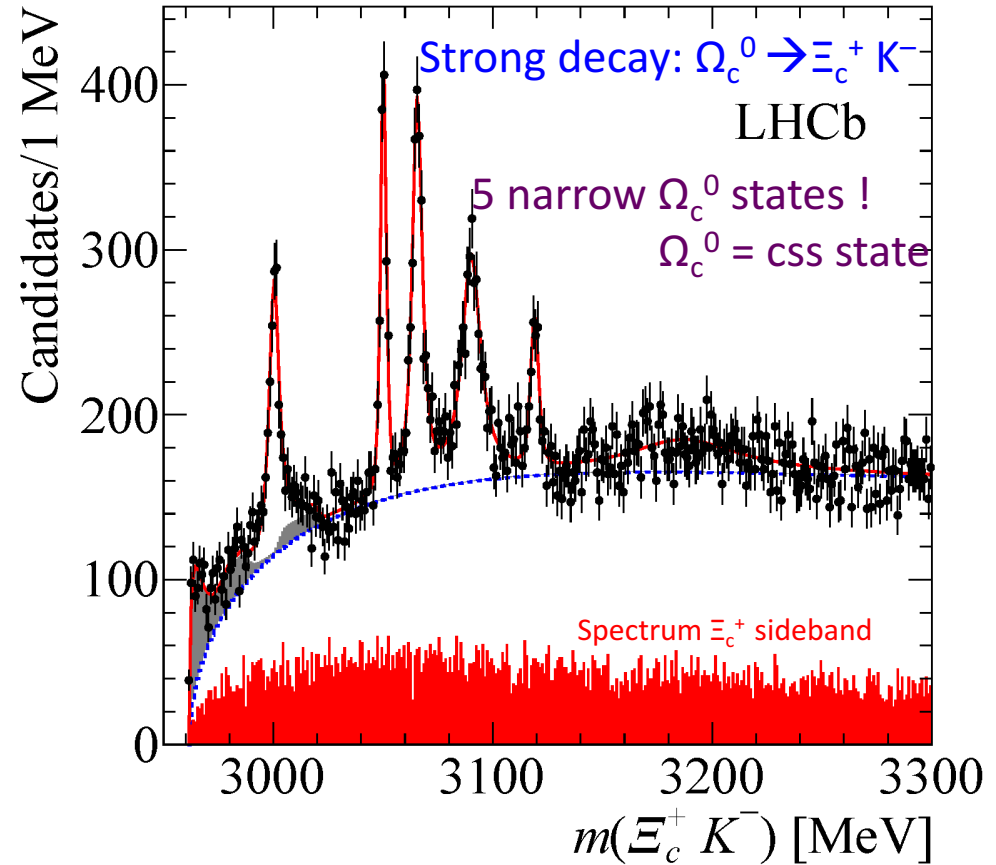
Spectacular confirmation of the quark model

The Magic of the Ω_c^0 baryon

1. Reconstruct $\Xi_c^+ = csu$ state



2. Combine Ξ_c^+ with K^- :



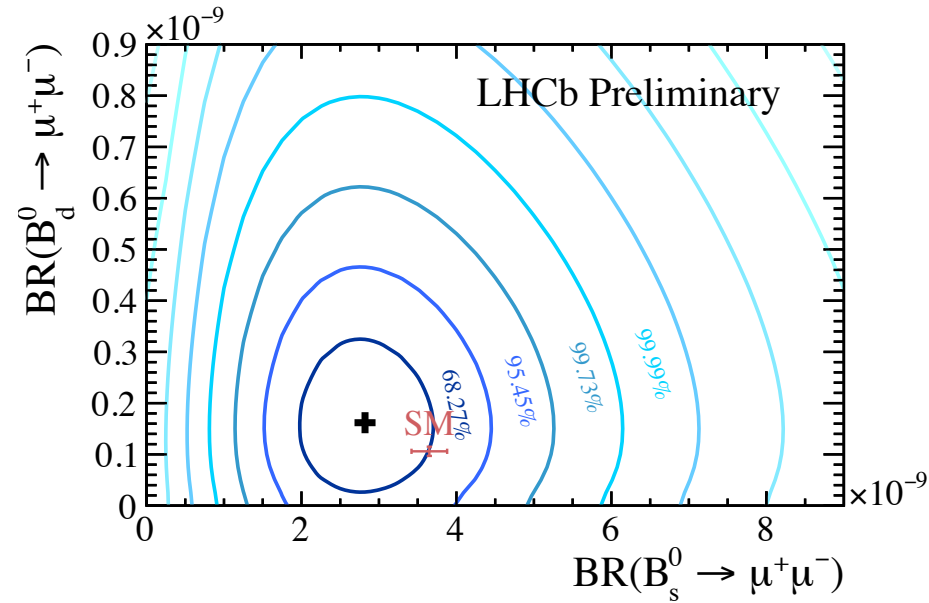
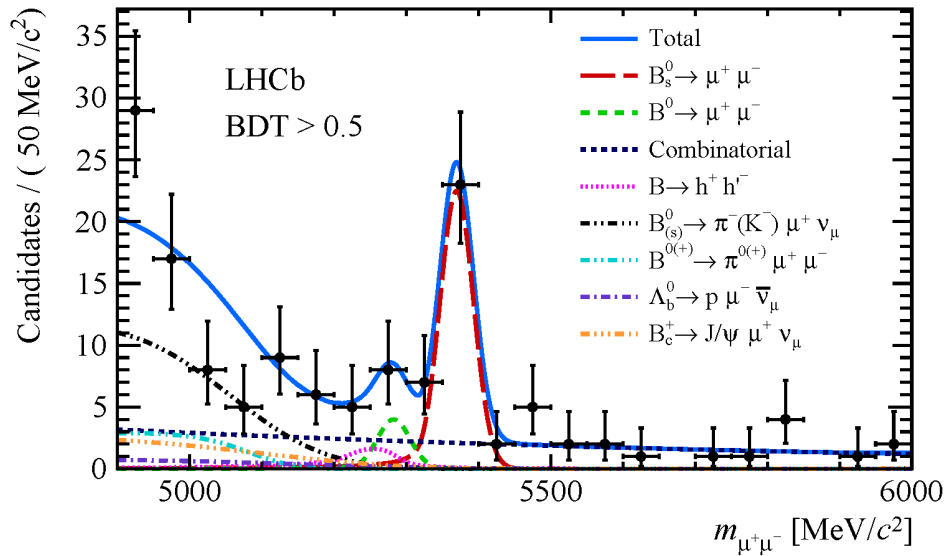
5 new particles discovered:

$\Omega_c(3000)^0, \Omega_c(3050)^0, \Omega_c(3065)^0, \Omega_c(3090)^0, \Omega_c(3119)^0$

Excited states of Ω_c^0 baryon, decaying as: $\Omega_c^0 \rightarrow \Xi_c^+ K^-$

Update from Jamboree: $B_{s,d}^0 \rightarrow \mu^+ \mu^-$

Branching Ratio's:



First measurement Effective Lifetime:

$$\tau = 2.04 \pm 0.44$$

Sensitive to scalar and pseudoscalar NP contributions via CP odd/even eigenstates.

