

Abstract Submitted
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Search for the Theta(1540) Pentaquark in Electro-Production with the BaBar Detector JONATHON COLEMAN, University of Liverpool, BABAR COLLABORATION — Since early in 2003, several experiments have presented evidence for the existence of a positive strangeness baryon state of mass around $1540 \text{ MeV}/c^2$ and width $< 8 \text{ MeV}$, the Theta(1540), which decays to K^+n and K^0p . Such a state has minimum quark content $u d u d \bar{s}$ and consequently has been interpreted as the $S = +1$ member of the anti-decouplet of pentaquark states proposed by Diakonov et al. Six of the claimed observations involve real or virtual photoproduction. We present preliminary results from a search for the production of the Theta(1540) in e^+e^- interactions (i.e. virtual photoproduction) in the Be beampipe of the BaBar Detector at the PEP-II Collider. Event selection procedures are summarised and $K_S^0 p$ invariant mass distributions in the threshold region are presented.

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