

## High Energy Physics - Experiment

# A study of charged kappa in $J/\psi \rightarrow K^* K_s \pi^0$

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Based on  $58 \times 10^6$   $J/\psi$  events collected by BESII, the decay  $J/\psi \rightarrow K^* K_s \pi^0$  is studied. In the invariant mass spectrum recoiling against the charged  $K^{*(892)}$ , the charged  $\kappa$  particle is found as a low mass enhancement. If a Breit-Wigner function of constant width is used to parameterize the  $\kappa$ , its pole locates at  $(849 \pm 77^{+18}_{-14}) - i(256 \pm 40^{+46}_{-22})$  MeV/ $c^2$ . Also in this channel, the decay  $J/\psi \rightarrow K^{*(892)+} K^{*(892)-}$  is observed for the first time. Its branching ratio is  $(1.00 \pm 0.19^{+0.11}_{-0.32}) \times 10^{-3}$ .

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