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## **$e^+e^- \rightarrow \gamma X(3872)$ cross section measurement**

We study the process of  $e^+e^- \rightarrow \gamma \omega J/\psi$  with  $11.6 \text{ fb}^{-1}$   $e^+e^-$  annihilation data taken at center-of-mass energies from 4.008 GeV to 4.600 GeV with the BESIII detector at the BEPCII storage ring.  $X(3872) \rightarrow \omega J/\psi$  is observed with more than 5 sigma significance for the first time. The  $X(3872)$  mass is measured to be  $3873.3 \pm 1.1 \pm 1.0 \text{ MeV}$ . The ratio of the decay rate of  $X(3872) \rightarrow \omega J/\psi$  to  $X(3872) \rightarrow \pi\pi J/\psi$  is measured to be  $1.6 \pm 0.4 \pm 0.2$ , which indicates a large iso-spin violation effect. The  $\sqrt{s}$  dependent cross section of is also investigated.

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