

## Recent measurements of charmonium decays

*Tuesday, 17 October 2023 17:02 (3 minutes)*

I shall present a few recent measurements of charmonium decays at BESIII in this talk. It will include i) based on 448M  $\psi(3686)$  events collected with the BESIII detector, the decay  $\psi(3686) \rightarrow \phi K_S^0 K_S^0$  is observed for the first time. And the branching fraction is measured with considering the interference between  $\psi(3686)$  and continuum production; ii) using an electron positron collision data sample of 2.7B  $\psi(3686)$  events collected by the BESIII detector, the process  $\chi_{cJ} \rightarrow \Omega_c^- \text{ anti-}\Omega_c^+$  ( $J=0,1,2$ ) has been observed for the first time, and the significance is 5.6, 6.4, 18 sigma, respectively. The corresponding branching fractions will be reported too; iii) the Born cross-section of the process  $e^+ e^- \rightarrow \eta J/\psi$  at a CMS energy 3.773 GeV is measured by using data samples collected at BESIII. The decay  $\psi(3770) \rightarrow \eta J/\psi$  is observed for the first time with a statistical significance of 7.4 sigma. The branching fraction of  $\psi(3770) \rightarrow \eta J/\psi$  is determined by considering the interference between  $\psi(3770)$  and continuum, as well as the highly excited vector states.

### Parallel Session

Poster Session

**Primary author:** DING, Xiaoxuan

**Presenter:** DING, Xiaoxuan

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