

## Covariant Helicity Amplitude Analysis for $J/\psi \rightarrow \gamma PP$

WU Ning<sup>1</sup> and RUAN Tu-Nan<sup>2,3</sup>

<sup>1</sup> Division 1, Institute of High Energy Physics, P.O. Box 918-1, Beijing 100039, China

<sup>2</sup> Department of Modern Physics, University of Science and Technology of China, Hefei 230026, China

<sup>3</sup> CCAST (World Laboratory), B.O. Box 8730, Beijing 100080, China

(Received: 2000-4-26; Revised: 2000-7-3)

**Abstract:** Covariant helicity amplitude analysis for the process of  $J/\psi \rightarrow \gamma PP$  is discussed. Starting from the S-matrix elements of decay process, we deduce the formulae of helicity coupling amplitudes for two-body decay process. These formulae are used to analyze intermediate resonance states in the process of  $J/\psi$  decay to  $\gamma\pi\pi$ ,  $\gamma K\bar{K}$ ,  $\gamma\eta\eta'$  etc.

PACS: 11.80.Et, 11.80.Cr

Key words: helicity analysis, partial wave analysis

[\[Full text: PDF\]](#)

Close