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 $B \rightarrow X_s \gamma$ ,  $X_s I^+I^-$  Decays and Constraints on Mass Insertion Parameters in MSSM XIAO Zhen-Jun, LI Feng-Ying, and ZOU Wen-Jun

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Abstract: In this paper, we study the upper bounds on the mass insertion parameters  $(\delta^{q}_{AB})_{ij}$  in the minimal supersymmetric standard model. We found that the information from the measured branching ratio of  $B \rightarrow X_{s}I^{+}I^{-}$  decay can help us to improve the upper bounds on the mass insertions parameters  $(\delta_{AB}^{u,d})_{3j,i3}$ . Some regions allowed by the data of  $Br(B \rightarrow X_{s}\gamma)$  are excluded by the requirement of an SM-like  $C_{7\gamma}(m_b)$  imposed by the data of  $Br(B \rightarrow X_{s}I^{+}I^{-})$ .

PACS: 13.25.Hw, 14.40.Nd, 12.60.Jv, 12.15.Ji Key words: B meson decay, the minimal supersymmetric standard model, mass insertion

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