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The contribution of $\psi(3770)$ charmonium in baryon-antibaryon production in electron-positron annihilation

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The total cross section of the process $e^+e^- \rightarrow \Lambda\bar{\Lambda}$ is calculated within the energy range close to the mass of $\psi(3770)$ charmonium state. Two different contributions were considered: the D -meson loop and the three gluon charmonium annihilation one. Both of them contribute noticeably and in sum fairly reproduce the data. Large relative phase for these contributions are generated with respect to the pure electromagnetic mechanism. As a by product the fit for the electromagnetic form factor of Λ -hyperon is obtained for large momentum transferred region.

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