

Squark pair production at muon colliders in the MSSM with CP violation

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Abstract: We study the pair production of scalar quark in a muon collider within the MSSM with CP violation. We show that including the CP phases can strongly affect the cross section of the process. This could have an important impact on the search for squarks and the determination of the MSSM parameters at future colliders. ?? 2010 Springer Science+Business Media, LLC.

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References:

1. Ellis, J., Rudaz, S., (1983) Phys. Lett. B, 128, p. 248
2. Bernreuther, W., Suzuki, M., (1991) Rev. Mod. Phys., 63, p. 3
3. <http://www.cap.bnl.gov/mumu/>, Muon Collider Collaboration <http://nicewww.cern.ch/~autin/MuonsAtCERN>, Prospective Study on Muon Colliders Dugan, M., Grinstein, B., Hall, L., (1985) Nucl. Phys., 225, p. 413
4. Huong, N.T.T., Bang, H.H., Cuong, N.C., Thuy, D.T.L., (2007) Int. J. Theor. Phys., 46, p. 41