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The Minimal Supersymmetric Standard Model (MSSM) TOM BERLIJN, State University of New York at Stony Brook, Stony Brook, NY — Matter comes to us in both symmetric and anti-symmetric forms, as bosons and fermions, so why couldn't space-time itself be anti-symmetric? Evidence for the presence of dark matter in our universe is overwhelming, but what does it consist of? The structure of the $U(1)\times SU(2)\times SU(3)$ gauge group of the standard model appears to be arbitrary, but is it possible to make a unifying theory with one single gauge group?

Supersymmetry certainly seems to be the answer to a lot of fundamental questions in elementary particle physics. Of course there are also some "practical" problems, the biggest probably being, that up to now, a supersymmetric particle has never been detected!

The main part of my talk will be about the MSSM, a theoretical framework in which these supersymmetric particles "live". Furthermore I will discuss supersymmetry signatures for both the huge accelerator experiments like LHC and Tevatron, as well as experiments that search for dark matter, like neutrino telescopes. If time allows, I would also like to present some of my calculations on neutralino annihilations in the sun, which I did for my Master's thesis in Amsterdam.

- Prefer Oral Session
 Prefer Poster Session

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