

Abstract Submitted  
for the TSS08 Meeting of  
The American Physical Society

**The Physics of the Very Small Using a Very Large Machine** RISHI-  
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— Very soon the largest particle collider ever built will be operational producing  
an energy density to mimic the conditions of the big-bang. It is a common con-  
sensus among particle physicists today that our current knowledge of physics is not  
complete, and the Large Hadron Collider will produce ‘new physics’. To detect and  
understand this new physics the detector named ATLAS has been built by a large  
collaboration of institutions, University of Texas at Arlington being one of them.  
This talk concerns my involvement with the ATLAS detector and the possibilities of  
discovering Super-Symmetry through Monte-Carlo studies and methods to analyze  
the data that is collected in the first year of collisions. The goal is to explore and  
discover the unknown and push the frontiers of our understanding of the universe.

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Date submitted: 13 Feb 2008

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