Abstract Submitted
for the PHY 599 Meeting of
Dept. of Physics and Astronomy, SUNY at Stony Brook

Sorting Category: 1.0 (E)

The discovery of Top quark

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State University of New York, Stony Brook — The first experimental observation of top quark in 1995 was one of the most important breakthroughs in experimental particle physics. Not only was it a great experimental success in itself but also was instrumental in validating the theoretical predictions of the standard model. My seminar is based on this discovery. I will be starting with a brief historical background about the development of the theory of top quark in the standard model. Then, the major part of the talk will be about the experiments performed by the D0 collaboration leading to the discovery. The parameters, the signatures and the data analysis procedures of this experiment will be discussed in this part. I will then conclude by talking about some recent developments and the importance of this discovery in increasing our knowledge of the Higgs boson.

1Expert: Prof. Robert Mccarthy
Supported in part by Stony Brook University

Prefer Oral Session
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Prefer Poster Session

Date submitted: 10/19/2015

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