



LABORATORY FOR ELEMENTARY-PARTICLE
PHYSICS (LEPP)

Theory Seminar

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**Quantum computing and
machine learning in high energy
data analysis**



Recently there has been a growing interest in the application of quantum computing and machine learning in many scientific disciplines, including high energy physics. In the first half of this talk, we will look at a novel quantum computing based technique to search for unmodeled deviations from a simulated expectation in high-dimensional collider data. In the second half, we will look at some ways in which the goals of machine learning, as it is used currently in analyses, are not perfectly aligned with the physics goals of the analyses. We will also look at ways of rectifying the demonstrated misalignments.

Friday, March 13, 2020
1:00pm
401 Physical Sciences Building