

## Machine Learning Techniques on NOvA

*Thursday, 1 November 2018 14:30 (20 minutes)*

The NOvA experiment has made measurements of the disappearance of  $\nu_\mu$  and the appearance of  $\nu_e$  in the NuMI beam at Fermilab including the neutrino mass hierarchy and the CP violating phase. Key to these measurements is the application of machine learning methods for identification of neutrino flavor and energy reconstruction. These methods require rigorous validation to both understand and develop. I will present applications of machine learning used in NOvA analyses as well as data driven techniques for validation.

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