

April 2, 2019

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**To: DUNE Collaboration (in support of membership application)**

Dear Drs. Blucher, Soldner-Rembold and Wilson,

Recently I attended a number of meetings related to the current and future DUNE computing needs and opportunities which have reinforced my desire to be part of the DUNE Collaboration. I earned my PhD in 2006 performing a search for leptoquarks during Run2 of the DZero experiment. Since 2007 I have been affiliated with the Northern Illinois Center for Accelerator and Detector Development (NICADD) at Northern Illinois University where I am currently a research scientist. As part of my work [1] I contributed to computing projects installing and supporting ATLAS Tier 3 systems at NIU and University of California (Fresno) and also the NICADD and NIU High Performance Computing (HPC) clusters. The NICADD installation has been extensively used for analyses of data in the D0 (2007-2012), ATLAS (since 2012) and CMS (since 2016) experiments by both graduate students and post-docs. Since 2017 the cluster is also used for the event simulations for the proposed REDTOP experiment.

NICADD HPC cluster [2] can contribute to both MC samples production and as a testing platform for DUNE software. It is configured under the HT CONDOR batch system (tuned for both sequential and MPI jobs) with CVMFS access and provides a flexible framework for ROOT-based analyses and complex GEANT4 based simulations. As of 2018, the NICADD cluster provides 700 processor slots (1.8-2.6 GHz) and 200 TB of shared disk space for about 40 active users.

I'm interested in joining the DUNE collaboration to work primarily with the DUNE computing consortium and, in future, on data analysis. Among the currently listed DUNE computing tasks that I can contribute to are the DUNE job management systems, code and configuration management, and adaptation of DUNE algorithms to use HPC for large scale processing. Support and evaluation of DUNE software on NICADD cluster will also benefit work of other NIU group members.

Yours Sincerely,  
Sergey A. Uzunyan

## References

- [1] S.A. Uzunyan, Research Narrative,  
<http://nicadd.niu.edu/~serguei/wiki/index.php?n=SU.ResearchNarrative>
- [2] NICADD cluster documentation,  
<http://nicadd.niu.edu/nhpc>