



## High Energy Physics Lunch Seminar

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## "Low Power Intelligent Algorithms for Detector Front-Ends"

Host: Tom LeCompte

February 11, 2020 – 12:00 p.m.-1:00p.m. Building 362/F-108

### Abstract:

This seminar will present an Early Career Research proposal for the work necessary to make low power intelligent detector front-ends possible. Neuromorphic accelerators offer the best possibility to provide intelligence in the high radiation power constrained environments of detector front-ends electronics. The devices are designed for sparsely encoded spiking neural networks. This proposal is for the work necessary to extending existing software frameworks for hyperparameter scans that include power usage. It will be used to develop and test algorithms for low power self-calibrating and intelligent detectors and verify their performance in real world applications.

### HEP Lunch seminar info:

Please use the doodle poll to sign-up for lunch at

<https://doodle.com/poll/f4p4kdu58h987s5d>

Chicken Sandwich \$8, Sub Sandwich \$9, Salad \$7, Slice of Pizza- \$5 (all include coffee).

Coffee 25¢. Pop or Water 75¢.

The HEP Lunch Seminar Schedule can be viewed at:

<https://indico.fnal.gov/event/22967/>