



## High Energy Physics Lunch Seminar

# Carlos Wagner

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**"Supersymmetry is Dead. Long Live Supersymmetry!"**

Host: Ian Low

November 20, 2018 – 12:00 p.m.-1:00p.m. Building 362/F-108

### Abstract:

Searches at the LHC have produced no evidence of new physics at the weak scale. In particular, these searches have put strong constraints on the strongly interacting sector of supersymmetric extensions of the Standard Model, implying that squarks and gluinos must be heavier than about 1TeV. This has led to the feeling that weak scale supersymmetry is dead. I will explain why this is a premature conclusion, based on the fact that none of the phenomenologically relevant aspects of these models have been properly explored. In particular, the weakly interacting sector, responsible for Dark Matter is still weakly constrained. I will also talk about an excess recently observed at the ATLAS experiment that may provide a hint of supersymmetry at the weak scale, and discuss the associated phenomenology.

### HEP Lunch seminar info:

Please use the doodle poll to sign-up for lunch at  
<https://doodle.com/poll/22zeuccg8hvimd4s>

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/19097/>