

High Energy Physics Lunch Seminar

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“Neutrino Mistakes; Wrong Hints and Tracks, Hopes and Failures”

Host: Zelimir Djurcic

October 23, 2018 – 12:00 p.m.-1:00p.m. Building 362/F-108

Abstract: In the last two decades, the field of neutrino physics has made enormous progress in measuring the strength and frequency of neutrino and antineutrino oscillations. Along the way, there have been many instances of misunderstanding which led to wrong measurements or speculation for new features of neutrino physics that are not now accepted as correct. This is part of the natural process of science, but given the well-accepted notion that we learn from our mistakes, it is worthwhile to look at some examples and see what the lessons might be. With that goal in mind, I have about 20 results which might be termed “neutrino mistakes,” with the fact in mind that there is no well-accepted definition of a mistake, and no unique threshold for counting something as a mistake when you change your mind after you obtain more information. While I’ve prepared at least one slide for each subject on the list, I’ll cover seven of them (including superluminal neutrinos and the 17 keV neutrino) with a little more detail. No clear conclusions were drawn from this exercise, but some interesting issues regarding putative wrong results will be discussed.

HEP Lunch seminar info:

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

<https://doodle.com/poll/dud8t4tuxzeprytz>

Chicken Sandwich \$8, Sub Sandwich \$9, Salad \$7, Slice of Pizza- \$5 (all include coffee). Soda or Water 75¢.

The HEP Lunch Seminar Schedule can be viewed at:

<https://indico.fnal.gov/event/18449/>