



Contribution ID: 54

Type: **Presentation**

Latest Development of the Noble Element Simulation Technique (NEST)

Friday, 23 September 2022 13:50 (15 minutes)

We will report the latest development of NEST, a comprehensive simulation package for noble liquid experiments. It has achieved increasingly accurate predictions of energy spectrum and discrimination between electronic and nuclear recoils for a large range of drift fields in liquid xenon and is used by leading dark matter experiments such as LZ and XENONnT. Opportunities to use this software package to inform the design of the next generation liquid xenon observatory for nuclear, particle and astrophysics will be discussed.

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Session Classification: Signal reconstruction

Track Classification: Signal reconstruction and identification (analysis methods, simulations)