

Joint seminar of the NPI of the CAS

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Tool Three Short Pieces:
On Baryon Number Conservation, Hard Process Associated Deuteron Production, and a Development in Time of Flight Particle Identification

A survey of three short although interrelated topics is presented spanning from a detector, a particle, and the search for a symmetry. With an emphasis on the coalescence mechanism of hadron production, for the first time jet-associated deuteron production is measured in pp collisions at $\sqrt{s} = 13$ TeV. The purview of the two-particle correlation method in elucidating particle production mechanisms by way of spatial symmetries will be discussed. Agreement is found in comparisons made to PYTHIA model calculations featuring baryon coalescence. Also included herein is discussion to do with a development that was made in time-of-flight (TOF) particle identification.

The seminar will take place extraordinary on Tuesday, April 4, 2023 at 10:30 a.m. in the conference room of the NPI's Department of Radiation Dosimetry at Bulovka (Na Truhlárce 39/64, 180 00 Prague 8 - Libeň).