

Continued progress on the ^{15}N system

Tuesday 18 November 2025 15:00 (1 hour)

Previous work has been performed to fit $^{14}\text{N}+n$, $^{14}\text{C}+p$ and $^{11}\text{B}+\alpha$ data for the ^{15}N system up to about 2 MeV above the their respective thresholds, which are similar in energy. This past work found that there were apparent discrepancies in the fitting, especially with the $^{11}\text{B}(\alpha, n)^{14}\text{N}$ and $^{14}\text{N}(n, p)^{14}\text{C}$ data sets. By implementing energy shifts, resolution effects, improved handling of the Coulomb functions near thresholds and increase in code speed, some of these apparent discrepancies were resolved. However, other discrepancies, including some rather large normalization factors for the data and some data with very small uncertainties, are still resulting in conflicting results.

Author: DEBOER, Richard (University of Notre Dame)

Presenter: DEBOER, Richard (University of Notre Dame)

Session Classification: Day 1