Neutron Detector Waveform Digitization[1] JONATHAN TOEBBE, Colorado School of Mines, FRED GRAY, Regis University, ELLIOT GRAFIL, UWE GREIFE, Colorado School of Mines — In the frame of a DoE Office of Nuclear Energy funded collaboration to design a next generation neutron elastic and inelastic scattering experiment, the Colorado School of Mines/Regis University group is responsible for developing and testing neutron detectors, pulse shape discrimination and read-out methods. This contribution will describe the test setup based on an n-ToF neutron selection using a ^{244}Cm-^{13}C source and the Regis Digitizer. Results on pulse shape discrimination from waveform digitization will be compared to other commercially available discrimination methods. We will also present our efforts to explore different types of algorithm for extraction of neutron assignment probabilities from the collected waveforms.

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