

Experiments with Coincident Gamma Ray Detection

Jim Napolitano February 8, 2026

This setup uses two NaI gamma detectors and a Vireo “streaming readout” digitizer to detect two simultaneous gamma rays from different kinds of radioactive source setups. Experiments include, in order of difficulty,

- Detection of the annihilation gamma rays from a ^{22}Na positron source.
- Detection of the coincident gamma rays from ^{60}Co radioactive decay.
- Compton scattering from a ^{137}Cs gamma ray source.
- The $\gamma\gamma$ angular correlation from ^{60}Co radioactive decay.