At Los Alamos also the scattering on ^{12}C of ν_μ produced by π decay-in-flight has been considered, with $\langle E_{\nu_\mu} \rangle \simeq 160$ MeV, and considering both exclusive (transition to ^{12}N ground state) and inclusive processes.

This represents a "special" case, since the corresponding kinematics lies in the middle between low-energy (where accurate descriptions of nuclear wave functions are needed) and middle-energy (where highly excited particle-hole configurations are crucial).

Several calculations have been performed using, again, very sophisticated shell model and CRPA techniques, and also some "more crude" calculations using the "language" of quasielastic scattering have been proposed, but a full understanding of the experimental results is still lacking.