NEUTRINOS AND NUCLEAR/HADRONIC PHYSICS

Neutrino-hadron and neutrino-nucleus scattering processes are receiving considerable attention, in particular because they are used to detect neutrinos. The precision required for the experiments is always increasing → the modeling of the cross sections must be very good.

New experiments will now measure the cross sections in order to test the theoretical models → possibility to make nuclear physics studies with neutrinos as is done with electrons.

Neutrino-hadron scattering physics enters many fields of investigation and a strict subdivision is not possible. However one can roughly consider the following scheme:

- Physics of neutrino detectors: → calculations of detectors response to solar, supernova, atmospheric and "terrestrial" neutrinos → models of ν-nucleus interaction are needed over a wide range of neutrinos energies.
- Studies of nuclear and hadronic structure

(• ν-nucleus interactions as input in description of astrophysical processes)