



Contribution ID: 52

Type: **Oral Presentation**

## Progress on nuclear modifications of structure functions

*Wednesday 9 September 2015 11:25 (25 minutes)*

I report our recent studies on nuclear structure functions. First, nuclear parton distribution functions are determined by analyzing high-energy nuclear reaction data. Using charged-lepton and neutrino scattering data, we investigate whether there are significant differences between nuclear modifications in the charged-lepton and neutrino reactions. This issue was first pointed out by the nCTEQ collaboration. Second, nuclear effects on the polarized structure function  $b_1$  are investigated in the deuteron. It is important to show theoretical estimates at this stage because an experimental proposal was approved at JLab to measure  $b_1$ . The studies could open a new field of spin physics for spin-one hadrons.

**Author:** Prof. KUMANO, Shunzo (KEK)**Presenter:** Prof. KUMANO, Shunzo (KEK)**Session Classification:** PDFs**Track Classification:** PDFs and nPDFs, FFs and jets