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## Inelastic neutrino-nucleus scattering in the superscaling model

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The superscaling SuSAv2 model, that was successfully used to explain electron scattering data in the quasielastic (QE) as well as in the high inelastic regions (see [1] and refs. therein), is here extended to charged-current neutrino scattering processes on nuclei. We provide a detailed description of the Delta nucleon resonance and compare our predictions based on the pure Relativistic Fermi Gas (RFG) and SuSAv2 scaling functions with previous results obtained using a Delta scaling function fitted to the analysis of  $(e,e')$  data. The model is extended to the complete neutrino inelastic spectrum, resonant, non-resonant and deep inelastic scattering (DIS), by considering different parametrizations of the weak inelastic single-nucleon structure functions and a Parton Distribution Function (PDF) model. Our predictions, including also two-particle two-hole contributions, are compared with data taken by the T2K collaboration.

[1] "Electron- versus neutrino-nucleus scattering". J.E. Amaro, M.B. Barbaro, J.A. Caballero, R. Gonzalez-Jimenez, G.D. Megias, I. Ruiz Simo. *J. of Phys. G47*, 124001 (2020).

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