

# Diffractive neutrino interactions

*Tuesday, 11 September 2012 17:10 (20 minutes)*

## Summary

Diffractive neutrino-production of pions at low virtuality  $Q^2$  is dominated by the axial current, which is partially conserved. PCAC in the form of the Adler relation connects diffractive diagonal and off-diagonal transitions in the axial channel. This is why high-energy neutrino interactions are usually considered as a sensitive test of the PCAC hypothesis. Final state interactions, known as absorption corrections, lead to a dramatic breakdown of the Adler relation.

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**Session Classification:** Diffraction in e-p Collisions (II)

**Track Classification:** Diffraction in DIS (phenomenology/theory)