2003 Vol. 39 No. 5 pp. 573-578 DOI:

An Alternative Approach to the Extraction of Structure Functions in Deep Inelastic e-p Scattering at 5 to 20 GeV

N. Ghahramany and M. Nouri

Department of Physics, Shiraz University, Shiraz 71548, Iran (Received: 2002-7-4; Revised: 2002-10-8)

Abstract: Two structure functions $W_1(x, Q^2)$ and $W_2(x, Q^2)$ are determined by using the cross sections measured in the deep inelastic electron-proton scattering experiments at Stanford Linac in the energy range of 5 to 20 GeV. In this paper an alternative mathematical approach have been used in such determination, resulting in a larger number of points in the graphs of the structure functions.

PACS: 13.75.Fb Key words: structure function, inelastic scattering, cross section, alternative approach

[Full text: PDF]

Close