Transverse (e,e') Response Functions for ^{4}He

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We present preliminary results for the (e,e') transverse response funtions of ^{4}He. Continuum states are completely included through the use of the Lorentz integral transform technique[1,2]. This calculation uses the AV18 two-nucleon potential together with the UIX NNN three body potential and the Coulomb interaction. A consistent isovector meson exchange current for the AV18 potential is included by using the technique of Arenhövel and Schwamb[3]. In addition we take account of all relativistic corrections to the one-body electromagnetic current operator up to and including order M^{-3} as discussed in reference [4]. The response functions are obtained using expansions in a basis of hyperspherical harmonics. Convergence is accelerated through the use of the EIHH method[5].

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