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Momentum Distributions for the Masses[1] ROBERT WIRINGA, Argonne National Laboratory — We report variational Monte Carlo calculations of single-nucleon momentum distributions for $A \leq 12$ nuclei. The wave functions have been generated for the Argonne v_{18} two-nucleon and Urbana X three-nucleon potentials. The distributions exhibit a high-momentum tail attributable to the one-pion-exchange tensor interaction and are proportional to the deuteron tail. They are broken down into spin and isospin components which may give insight into polarization and halo aspects of different nuclei. We also present some cluster distributions, such as d-p in ^{3}He, t-p in ^{4}He, and α-t in ^{7}Li. These momentum distributions are made available on-line at www.phy.anl.gov/theory/research/momenta/ as both tables and figures.

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