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Translationally Invariant Local One-Body Densities for ⁶He¹ MATTHEW BURROWS, CHARLOTTE ELSTER, GABRIELA POPA, Ohio University, Department of Physics and Astronomy — Applications of No-Core-Shell-Model (NCSM) densities in reaction calculations require that they are translationally invariant. In order to obtain translationally invariant local one-body densities for ⁶He we first reconstruct them in a space-fixed, coordinate-space frame from the output of NCSM calculation. Then the center-of-mass contribution is removed exactly in momentum-space. Space-fixed and translationally invariant densities are compared. RMS radii are computed from the translationally invariant local densities.

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> Matthew Burrows Ohio University, Department of Physics and Astronomy

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