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**No-core full configuration calculations for neutron droplets**<sup>1</sup> JAMES VARY, PIETER MARIS, Iowa State University — We present recent results from no-core full configuration calculations for neutron droplets in an external field. We use several different NN interactions (JISP16, chiral N3LO, and Minnesota) and discuss the similarities and differences in the obtained energies, rms radii, and density profiles. We get good numerical convergence for up to 20 neutrons, and our results are in agreement with other methods. These results form an excellent basis for validation and verification of new energy-density functionals for nuclear physics.

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Pieter Maris Iowa State University

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