

XVth Quark Confinement and the Hadron Spectrum



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Predictions in the superheavy region from the quark-meson coupling model QMC π -III

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The Quark-Meson Coupling (QMC) model describes a self-consistent relationship between the dynamics of the quark structure of a nucleon and the relativistic mean fields arising within the nuclear medium. The model has been successful in computing ground-state observables of finite nuclei and in predicting properties of dense nuclear matter and non-rotating neutron stars. This presentation will focus on the most recent model predictions for the superheavy region, encompassing energies and deformations. The results have shown consistent improvement as the model evolved, comparable to those from other nuclear models, despite employing significantly fewer model parameters.

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