**The performance of self-consistent models in the realm of exotic nuclei**

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Continously developing experimental facilities produced in the last two decades a world of new nuclei outside the valley of stability. The new data thus acquired constitute severe probes for existing nuclear structure models, the liquid-drop model plus shell corrections (macroscopic-microscopic method) and the various brands of self-consistent mean-field models. All these models employ a great deal of phenomenological adjustment. New nuclei help enormously to scrutinise the predictive power of these various models and to improve on hitherto vaguely fixed aspects. The poster will discuss several key data and their value to discriminate models, e.g. binding of super-heavy elements, two-nucleon separation energies, isotopic shifts, neutron radii, or odd-even staggering.

Probably the most popular from the self-consistent models are the Skyrme-Hartree-Fock method (SHF), the Gogny force, and the relativistic mean field model (RMF). We will discuss and compare SHF and RMF. In both cases, the actual model parameters are adjusted phenomenologically and thus there exists a great variety of different parametrisations within SHF as well as RMF. The presentation will cover several different parametrisations to exemplify the versatility of the models and to evaluate possible systematic differences between SHF and RMF. We will compare formal aspects as well as the descriptive power. For example: the RMF has proven to be superior what spin-orbit properties is concerned while the SHF is more versatile in iso-vector trends; both aspects play a role in extrapolations to exotic nuclei. This hints that both models still deserve improvements. Data from exotic nuclei are crucial for this further development.