The uNclear Nuclear Pairing

Reducing the knowledge gap

- Pairing correlations play an important role in finite and also infinite nuclear systems, e.g. in neutron stars. A clear understanding of the microscopic foundation of the pairing functional is still lacking.

- Mass tables for a thousand even-even and odd-even nuclei have been studied using different forms and methodologies for the pairing mechanism.

- New functional forms for the nucleon-nucleon pairing interaction were proposed.

[Graphs and data plots illustrating neutron and proton pairing energy levels and rms values for different theories.]