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Physics of neutron-rich exotic nuclei¹

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Gaining a better understanding of heavy neutron-rich nuclei is central to the resolution of a number of open questions in nuclear structure physics, nuclear astrophysics and various nuclear physics applications. Access to these nuclei has been greatly improved recently with new medium and large scale facilities and knowledge of this region of the chart of nuclei is expanding rapidly. The big questions involving neutron-rich nuclei will be briefly presented in this talk, together with the measurements that are needed to address them and our current ability to fill these needs. The current capabilities will be concisely illustrated by recent spectacular experimental results in the field. The expected next steps will be highlighted by concentrating on the limits of what is possible now and the limitations that remain and what is needed to address them.

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