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Comparison of Nuclear Mass Models with the Nuclear Mass Toolkit online at nuclearmasses.org[1] CAROLINE D. NESARAJA, MICHAEL S. SMITH, ERIC J. LINGERFELT, ORNL, HIROYUKI KOURA, JAEA, FILIP G. KONDEV, ANL — Nuclear masses are crucial in many areas of basic and applied nuclear science, ranging from r-process nucleosynthesis in supernovae to developing new models of superheavy nuclei. There is significant international effort in new mass measurements, new theoretical mass models, and new mass evaluations – but the dissemination of mass information has not kept pace with these important developments. We have built an online, dedicated suite of codes to address this problem – the **Nuclear Mass Toolkit** at **nuclearmasses.org**. This free, platform-independent system enables researchers to quickly and efficiently share, manage, visualize, access, manipulate, compare, and analyze nuclear mass datasets. With our system, researchers can upload their own mass datasets, store them, share them with colleagues, quickly and easily visualize them in customizable 1D and 2D plots, and calculate and plot RMS differences. We will demonstrate the utility of our site by comparing the RMS deviations of a variety of different theoretical mass models from the AME2003 evaluated masses, over a variety of mass ranges.

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