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**Recent Augmentations of the Functionality of the Thermonuclear Reaction Rate Calculator (TReRaC)** KYLE THOMSEN, Tennessee Technological University, MICHAEL SMITH, ORNL — The chemical variety of our universe can be explained by stellar nucleosynthesis. Many thermonuclear reactions are studied by reproducing them in accelerator experiments and determining their rates. Using the codes available through the Computational Infrastructure for Nuclear Astrophysics (CINA), researchers can process the results of these experiments. One such program is the Thermonuclear Reaction Rate Calculator (TReRaC), which uses various experimental inputs including resonant energies, strengths, channel widths, and information on non-resonant contributions to calculate reaction rates. Presently, TReRaC is capable of quickly generating accurate rates which closely match those given in a number of publications. This adds to CINA capabilities by enabling a wider variety of nuclear information to generate rates. The next step in TReRaC's evolution is integration into the existing CINA complex so that it can be used by researchers worldwide.

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