

The quest for the origin of the elements

Nuclear astrophysics is a vibrant research field, with a close connection to numerous recent discoveries and predictions in astrophysics and cosmology. It deals with nuclear reactions which generate different states of matter, energy which powers the stars and the elements we observe in the Universe today, remnants of the Big Bang and stellar nucleosynthesis. But the information on reactions of relevance for understanding cosmology and stellar evolution are difficult to extract directly in laboratory measurements at the small astrophysical energies. In recent years, new methods have been developed with a combination of progress in theory and new experimental techniques, which are the subject of this talk.

Carlos Bertulani
Texas- A&M Commerce