Abstract for an Invited Paper for the HAW05 Meeting of The American Physical Society

## What Do We Know and What Do We Need to Know in Nuclear Science. DONALD F. GEESAMAN, Argonne National Laboratory

The mission of nuclear science is to understand the origin, evolution and structure of the baryonic matter in the universe – the matter that makes up stars, planets and human life itself. This is a time of tremendous progress in our science. In this talk, I will take stock of where we stand in our quest to understand baryonic matter and focus the discussion for the future in terms of the scientific questions we must address to make progress. It is a time of great opportunities and exciting challenges throughout our science: in the study of nuclei and nuclear astrophysics, quantum chromodynamics and the fundamental symmetries and forces of nature.

<sup>1</sup>This work was supported by the U. S. Department of Energy, Office of Nuclear Physics under Contract No. W-31-109-ENG-38.