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3-6-90 JS (3)

CONF-900343--3

SLAC-PUB--5193

DE90 008100

THE EGS4 CODE SYSTEM: SOLUTION OF  
GAMMA-RAY AND ELECTRON TRANSPORT PROBLEMS\*

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Abstract

In this paper we present an overview of the EGS4 Code System—a general purpose package for the Monte Carlo simulation of the transport of electrons and photons. During the last 10-15 years EGS has been widely used to design accelerators and detectors for high-energy physics. More recently the code has been found to be of tremendous use in medical radiation physics and dosimetry. The problem-solving capabilities of EGS4 will be demonstrated by means of a variety of practical examples. To facilitate this review, we will take advantage of a new add-on package, called SHOWGRAF, to display particle trajectories in complicated geometries. These are shown as 2-D laser pictures in the written paper and as photographic slides of a 3-D high-resolution color monitor during the oral presentation.

*Invited paper presented at the International Conference  
on Supercomputing in Nuclear Applications  
Mito City, Japan, March 12-16, 1990*

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\* Work supported by the US Department of Energy under contract DE-AC03-76SF00515

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