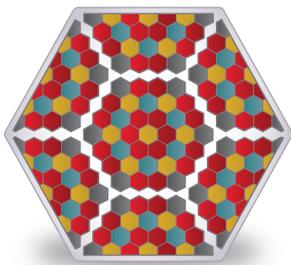




## Generalized-Geometry Lattice Physics Code

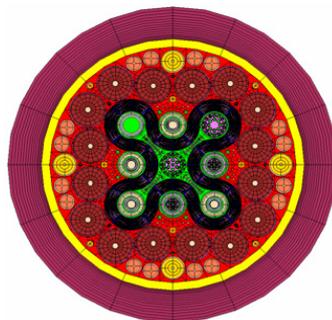
HELIOS2 is a two-dimensional, generalized-geometry lattice physics transport code. By including the latest nuclear data and substantially expanded modeling capability, HELIOS2 reaches far beyond the capabilities of previously available versions.



### The Flexibility You Need

The generalized geometry and computational options in HELIOS2 allow the modeling of any imaginable fuel design. There are no restrictions on lattice or geometry types.

HELIOS2 is capable of analyzing fuel used in both conventional and non-conventional nuclear reactor designs. It can perform complex physics calculations for non-LWR lattices (CANDU, PHWR, Magnox, RBMK, etc.) and experimental reactors, like MTR and TRIGA.



HELIOS2 has also been used to analyze hundreds of cycles of VVER operation. Even non-standard fuel designs, such as curved plates and unstructured liquid or gas fuels, are easy in HELIOS2.

### Improved Modeling Detail

Exploiting the power of today's computational hardware, HELIOS2 requires fewer approximations and performs more rigorous solutions than the previous generation of lattice physics codes.

The addition of a Method of Characteristics solver allows larger models, such as multiple fuel bundles and fractional cores, to be calculated with fewer required computing resources.

### Accuracy

HELIOS2 has been extensively validated against measured critical experiments, continuous-energy Monte Carlo calculations, and international isotopic benchmarks. HELIOS2 delivers exceptional accuracy for traditional, non-traditional, and experimental fuel designs.

