

**Intermediate classes** are designed for people who have some experience in running MCNP Monte Carlo calculations, but would like to refresh or advance their skills. It covers a quick overview of the MCNP basics and then advances into more complex features within the code. In addition to the basic introduction material covering code input, geometry, plotting, sources, tallies, physics tables, criticality, and variance reduction, the intermediate level class topics include: Advanced CSG Geometry (universes, lattices, repeated structures); Advanced Source Definitions (repeated sources, surface source read/write); Advanced Tallies & Variance Reduction (repeated tallies, perturbations, pulse-height tallies, dxtran, weight windows); Introduction to Parameter Studies, Intrinsic Source Generation, MCNPTools.

This 5-day intermediate class is designed for people who have some experience in running MCNP Monte Carlo calculations, but would like to refresh or advance their skills. It covers a quick overview of the MCNP basics and then advances into more complex features within the code. In addition to the basic introduction material covering code input, geometry, plotting, sources, tallies, physics tables, criticality, and variance reduction, the intermediate level class topics include:

- New features in MCNP6
- MCNP6 basics
- Advanced CSG Geometry
  - universes, lattices, repeated structures
- Advanced Source Definitions
  - repeated sources, surface source read/write
- Advanced Tallies & Variance Reduction
  - repeated tallies, perturbations, pulse-height tallies, dxtran, weight windows
- Introduction to Parameter Studies, Intrinsic Source Generation, MCNP Tools

The class will be based on the latest release of MCNP6 code. You are expected to have some experience with MCNP. A CD with class notes will be provided for use in the classroom.