

Design of Neutron Instrumentation via Simulation

E. Farhi – *ILL, France* <farhi@ill.eu>

The lecture will introduce basic principles of neutron instrument simulation using Monte Carlo methods with the *McStas* simulation package <www.mcstas.org>. Emphasis will be given to simulation of sources (linked to *MCNP/Tripoli*), some optical systems (Fermi Choppers), Samples (linked to Molecular Dynamics codes), and Detectors (gas tubes). A demonstration will be performed for a complete virtual experiment on a Time-Of-Flight instrument simulating powders and liquid samples.