

Development and applications for the thermal neutron transport library
NCrystal at CSNS

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Originated from the European Spallation Source, the thermal neutron transport library NCrystal has been widely used for novel neutron detector design. With the close collaboration between the China Spallation Neutron Source and the European Spallation Source, the number of thermal scattering models and the user community of NCrystal are growing continuously. In this talk, a full list of physics models in NCrystal is briefly reviewed. In addition, development activities at the China Spallation Neutron Source for supporting the Monte Carlo simulations on small-angle scattering, single phonon coherent scattering and nanomaterial neutron reflectors are introduced.