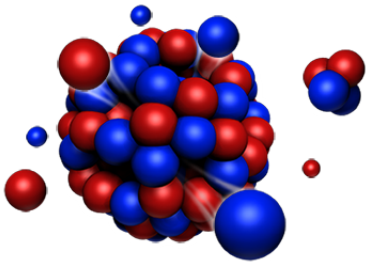

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Brilliance Transfer calculations for the Second Target Station

Monday, 14 October 2019 16:30 (2 hours)

Brilliance Transfer (BT) calculations have emerged as a useful tool to judge the overall efficiency of a guide system1. In this talk, I will present a source-to-sample approach to BT calculations and showcase one way to practically implement this into McStas simulations using standard components. I will discuss the BT calculation results for the preliminary guide design types of the initial suite of Second Target Station instruments at ORNL. Special attention will be paid to the advantages as well as the practical and theoretical limitations of this approach.

(1) Andersen, K. H.; Bertelsen, M.; Zanini, L.; Klinkby, E. B.; Schönfeldt, T.; Bentley, P. M.; Saroun, J. Optimization of Moderators and Beam Extraction at the ESS. J. Appl. Crystallogr. 2018, 51 (2), 264–281.

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