## NEUTRON IMAGING AND CULTURAL HERITAGE

## SIMPLE METHOD FOR CORRECTION OF CENTER OF ROTATION IN NEUTRON TOMOGRAPHY

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Neutron tomography has been recently become one of the widely used non-destructive techniques along with synchrotron and X-ray imaging. The routine usage of neutron imaging requires careful pre-processing of projection or sinogram data to avoid the artifact occurrence in the reconstructed data due to misalignment in sample-detector system and degradation of detector system itself. In this work strong artifacts appeared due to misalignment of center of rotation with respect to center of the projection image are considered. I propose a simple method to calculate the shift by which the projections should be translated to align the center of rotation with the center of the projection image. As in already existed methods in the proposed one two projections taken at 0° and 180° are utilized in calculations. But further calculations are performed on binary images using basic morphological operations. Computation algorithm can be easily implemented in ImageJ software.