Contribution ID: **26** Type: **Short talk**

Event-based neutron radiography with Image Intensifier and CMOS camera

Wednesday 21 June 2023 10:00 (15 minutes)

High-resolution neutron radiography requires an imaging system capable of detecting the exact location of the absorbed neutrons in the scintillator screen. This is realized by a sensitive CMOS camera with high frame rate capabilities and an image intensifier, which is able to amplify the weak light output created by individually absorbed neutrons. Identifying and recording single neutron events appearing as a cluster of intensity spots allows narrowing the point spread function of the imaging system compared to conventional intensity-integrated detection mechanisms. Further, it facilitates the characterization and optimization of the scintillator properties for better imaging performance.

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