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[704] High resolution neutron imaging at Paul Scherrer Institut

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Recent detector developments lead to enhancement of spatial resolution capabilities of neutron imaging to single digit micrometer level. At PSI, a device that enabled imaging with better than 5 micrometers spatial resolution was developed in the framework of a Neutron Microscope project and is now available to a broad neutron imaging user community at various beamlines. The progress achieved within the framework of this project will be concisely presented.

The above mentioned progress enabled new science to be pursued. Several applications of the high resolution neutron imaging will be presented, namely defects in additively manufactured gold alloys and in uranium oxide TRISO particles, hydrogen distribution in Zircaloy tubes for nuclear fuel element, and others.

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Session Classification: Quantum Beam Science: bio, materials and fundamental physics with neu-

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