

Seminarium Astrofizyczne
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Is there possible application of the MARIA reactor for specific astrophysical research?

Reactor MARIA is located in the National Centre for Nuclear Research, Świerk-Otwock (Poland). First critical experiment of MARIA has been done in 1974 and during past forty years the reactor has been significantly modernized. Actually every year brings some upgrading's of MARIA operational infrastructure. Recent years improvements are, among others, core conversion from Medium Enriched Uranium (**MEU**) into Low Enriched Uranium (**LEU**) fuel elements, primary cooling system enhancement – new main pumps and new emergency cooling system with stand-by pumps, emergency power supply voltage converters replacement and implementation of the new irradiation facilities. Recently NCBJ has acquired also some modern instruments for neutron studies. Four modern instruments dedicated to neutron studies will soon come to Świerk according to an agreement reached between NCBJ and Helmholtz-Zentrum Berlin. The instruments will certainly expand opportunities to conduct neutron experiments at the MARIA reactor research lab. In consequence MARIA reactor is one of the most modern European research reactors with the relatively long perspective of the operation. It is good time to ask question: is there possible application of the MARIA reactor for specific astrophysical research?

Serdecznie zapraszam,
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