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Departament Badań Układów Złożonych (DUZ)
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High Performance Computing for Nuclear Reactor Design and Safety Applications

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The lecture will highlight the importance of high performance computing towards the nuclear reactor safety and design applications. The presented work is a part of a bi-lateral collaboration, in the form of a research program, between NCBJ and NRG. Within this collaboration, an enormous effort has been put forward to generate a high quality (one of a kind) Direct Numerical Simulations (DNS) database of two important thermal-hydraulic problems within the nuclear industry, i.e. pressurized thermal shock (PTS) and inter-channel mixing in a bare rod bundle configuration. These large scale DNS computations have been performed using high performance computing (HPC) cluster located in Świerk Computing Centre (CIŚ).

Serdecznie zapraszamy,
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