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## **HYBRILIT –KEY OF THE HIGH PERFORMANCE COMPUTING IN JINR**

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The overwhelming part of the scientific investigations carried out in the Joint Institute for Nuclear Research (JINR) asks for the solution of a broad spectrum of computing intensive tasks of ever increasing complexity. To cope with such tasks, the Laboratory of Information Technologies (LIT) of the JINR has developed a significant dedicated information-computing infrastructure the evolution of which will grow up during the next years into a Multifunctional Information and Computing Complex (MICC). The present paper deals with the high performance computing component of the MICC, which is being implemented in the heterogeneous computing cluster HybriLIT (<http://hybrilit.jinr.ru/>).

The gradually developed HybriLIT configuration includes compute nodes with different types of coprocessors (graphical accelerators (GPU) NVIDIA and Intel Xeon Phi coprocessors). A hardware-software environment was created which matches the requirements of scalability and high fault tolerance and secures efficient system administration. The network access to remote software resources secures efficient fulfillment of user needs and creates hope for the connection of the resources of remote clusters.

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