



Семинар научного отдела вычислительной физики

Вторник, 29 октября 2019 в 15.00

Ком. 310

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Simulation of temperature variation inside INCDTIM Data Center by airflow control

Cooling is a major cost factor in Data Centers. If it is implemented improperly, the power required to cool the Data Center can become comparable to or can exceed the power used to run the IT equipments themselves. Cooling is also often the limiting factor in Data Center capacity (heat removal may be a bigger problem than obtaining the energy needed for computing equipment).

In order to optimize the temperature inside the INCDTIM Data Center, four stages were undertaken:

- a) collecting input data and building up the 3D model of the current situation;
- b) designing different solutions for directing the airflow in the Data Center;
- c) implementation of the cooling solution found;
- d) tracking system operation and adjusting parameters according to the obtained values.

The aim of this work was to simulate the variation of the temperature by air flow control. The 3D model of the Data Center was created in CAD Software and the simulation of the air flow was done in Ansys CFD.

Acknowledgement: This work was carried out in the framework of Romanian-JINR cooperation (Order 396-73/27.05.2019 and Order 397-75/27.05.2019)