

ABSTRACTS

УДК 372.853:004.9

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TOOLS OF COMPUTER SIMULATION IN LEARNING PHYSICS

The article deals with the problem of intellectual development of students in learning physics by means of computer simulation. The main objectives of teaching computer simulation in learning physics is the general outlook development, mastery of modelling as a method of knowledge, the development of practical skills of computer simulation, the implementation of inter-subject relationship, development and professionalization of computer skills, developing skills of project activities.

It is shown that computer simulation of physical processes is one of the components of intellectual learning environment. The article analyzes in detail the classification of simulation software, such as software of demonstration and modelling and educational software tools creating the environment of activities. Using software of demonstration and modelling allows establishing interdisciplinary communication, improves the quality of knowledge, creates positive motivation, and enhances student interest in the subject.

Educational software tools creating the environment of activities are intelligent educational systems the use of which contribute to understanding the essence of logical relationships between the original and models, especially the construction of models, and forms students' idea of modelling as a method of learning about the world.

Accordingly, the adequate use of educational software tools creating the environment of activities in learning physics contributes to the development of intelligence of students.

Key words: learning physics, computer simulation tools, development of intellect.