

Title: Interactive GeoGebra applets for Collection of Solved Problems in Physics

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Abstract: The aim of the diploma thesis was to focused on designing of interactive applets and desiging of solution to physical problems in the field of electricity and magnetism for Electronic Collection of Solved Problems. The thesis is also focused on the useability of the interactive applets during the physics education. Within this thesis was totaly created 22 interactive applets, a description and questions for working with them and 13 solutions to physical problems. Another parts of the thesis are: manual how to design interactive applets in the GeoGebra system, manual how to integrate these interactive applets into Collection of Solved Problems and library of partial construction in GeoGebra. The last part of the thesis is about verification of usability of these interactive applets in physics education, which was performed via observation of the students during the work with the interactive applets and via feedback questionnaire.

Keywords: physics, solved problems, GeoGebra, applets, electricity and magnetism