

Essay Topics for Applicants to the PhD Program 8D05301 – Physics

1. Mathematical and software tools for modeling and analyzing nanostructures
2. Fundamental and applied physics: interrelation, advantages and disadvantages
3. Equations of mathematical physics and their contribution to the development of fundamental physical theory
4. Commercialization of research results in physical science
5. The place of materials science in the system of physical disciplines
6. Research of scintillation and dosimetric materials
7. Prospects of computer modeling of physical processes
8. Relevance of research in the field of corpuscular optics
9. Spectroscopic methods of analysis
10. Areas of current scientific research in physics
11. Physics is the fundamental basis of natural sciences
12. The essence of fundamental physical knowledge for the development of the intellectual potential of the country
13. The main unsolved problems of modern physics