

Fundamentalization of mathematical knowledge while teaching students inverse and incorrect problem

Yessen Bidaibekov ¹, Victor Kornilov ², Guldina Kamalova ³,
Nagima Akimzhan ⁴

^{1,3,4} *Department of Computer Science and Informatization of Education,
KazNPU named after Abai, Almaty, Kazakhstan
E-mail: ¹esen_bidaibekov@mail.ru*

² *Department of Informatization of Education, Moscow City Training
University, Moscow, Russia
E-mail:² vs_kornilov@mail.ru*

Abstract: Fundamentalization of mathematical knowledge of students of physical and mathematical areas of training in higher educational institutions is considered in the article [1, 2].

Training inverse and incorrect problems, the solution of which requires the development of a number of mathematical theories has a significant opportunity to improve the fundamental mathematical knowledge. To confirm this, the article presents several productions of inverse problems and methods of their study, included in the content of training inverse and incorrect problems of the future specialist of physical and mathematical profile [3–5].

Keywords: training of inverse and incorrect problems, mathematical education, competence in the field of applied mathematics, student.

2010 Mathematics Subject Classification: 65L09, 65M32

REFERENCES

- [1] Bidaibekov, Y.Y., Kornilov, V.S., Kamalova, G.B. “Teaching of future mathematics and computer science teachers of inverse problems for differential equations”, *Vestnik of Moscow city training university. Series of Informatics and informatization of education*, No.3(29), pp. 57-69 , 2014.
- [2] Bidaibekov, Y.Y., Kornilov, V.S., Kamalova, G.B., Akimzhan, N.Sh. “Fundamentalization of knowledge system on applied mathematics in teaching students of inverse problems for differential equations”, *AIP Conference Proceeding*, 1676, 020044-1020044-5, AIP Publishing, Antalya, doi: 10.1063/1.4930470 2015, p.6.
- [3] Bidaibekov, Y.Y., Kornilov, V.S., Kamalova, G.B., Akimzhan N.Sh., “Using computer technologies in teaching university students of inverse problems for ordinary differential equations”, *Vestnik of Peoples’ friendship university of Russia. Series of ”Informatization of education”*, No.2, pp. 57-72, 2015.
- [4] Kabanikhin, S.I., “Inverse and incorrect problems ”, Siberian scientific edition, Novosibirsk p. 458, 2009.
- [5] Romanov, V.G., “Inverse problems of mathematical physics: monograph”, Nauka, Moscow p. 264, 1984.