

Digital Image Processing in Nuclear Medicine

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The nuclear physics methods are increasingly important in medicine for the early diagnosis of diseases. Nuclear medicine is of the most modern methods of non-invasive functional diagnostics, providing information that cannot be acquired with other imaging technologies. Its methods require advanced mathematics for data processing and analysis [1]. Development of mathematical methods and data processing software for single photon emission computed tomography (SPECT) and positron emission tomography (PET) remains challenging problem.

The report discusses the methods for radionuclide image processing for dynamic and gated SPECT data [2]. There is a trend toward complete automation of processing and interpretation of radionuclide studies. The report presents the developed data processing software suite for nuclear medicine imaging. In conclusion, the main directions and prospects for the development of nuclear medicine data processing tools are considered.

REFERENCES

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