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The system of automatically processing and analyzing neurobiological experimental data of the Kurchatov Institute Resource Center

The report will present a project of developing the system, based on the Kurchatov Institute Computing Center, provides the automatically processing and analysis of experimental data, obtained on the equipment of the Kurchatov Institute Resource Center (Tomograph Siemens Verio Magnetom 3T).

In addition to the processing and analysis module, the system also includes a database, that provides centralized orderly storage of experimental data, and the results of their processing and analisys. User's works with system is provided by a web interface, that allow work with data at any time and any place. In particular, the user is provided with access to virtual machines with preinstalled specialized software, enabling remote viewing of neuroimaging results.

The implementation of the system allows: speed up processing and analysis of data due to the parallelization of computational processes; provide the wide of choice of processing methods and analysis data by deploying a large number of specialized software packages; provide the intelligent search engine for data mining and future data analysis; organize a single centralized database of experimental data and the result of their processing and analysis; provide the ability to work with data at any time and from any place.

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