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El'Manuscript 2021

8th International Conference on Textual Heritage and Information Technologies

12.04.2021 – 15.04.2021

Albert-Ludwigs-Universität Freiburg

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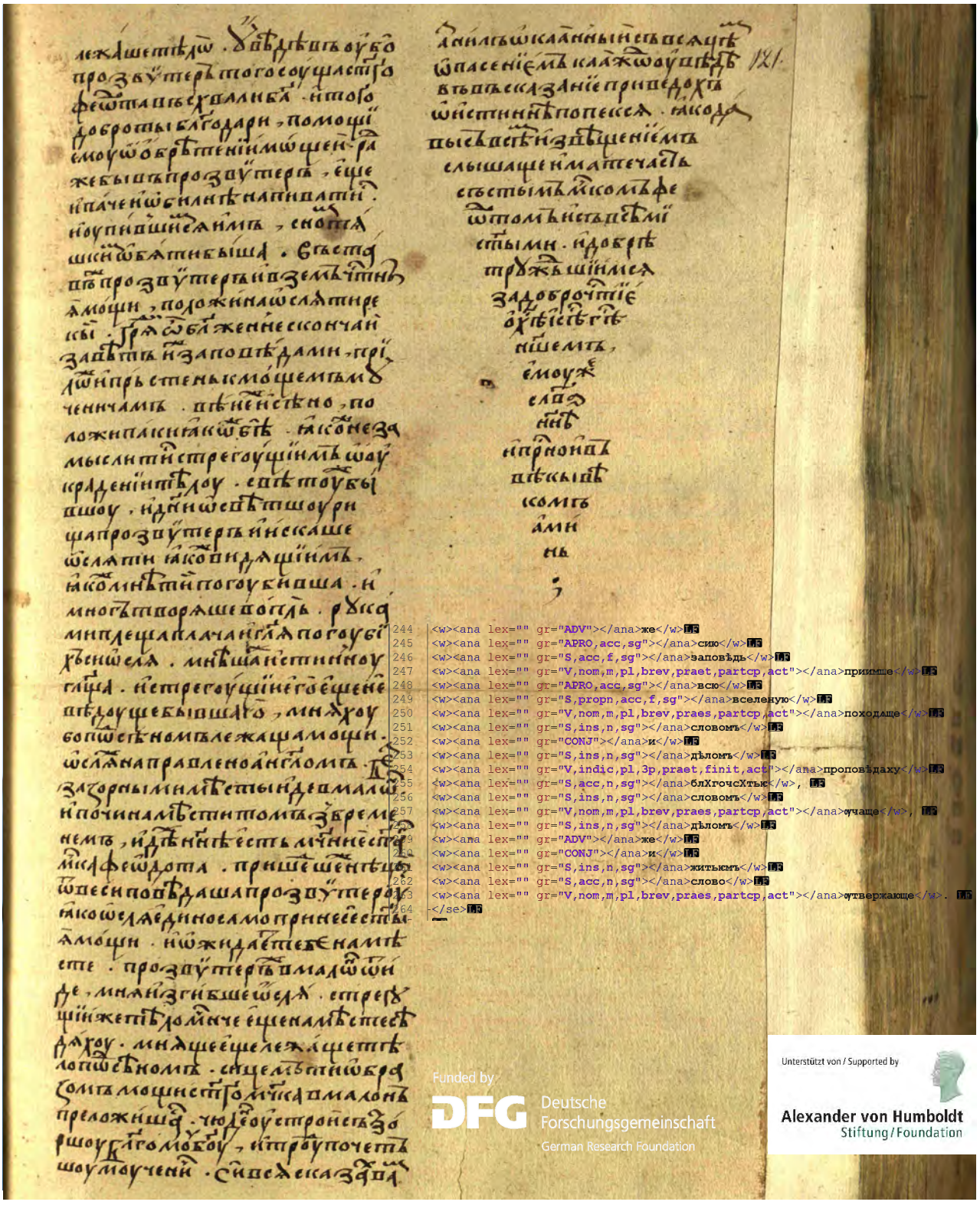

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Textual Heritage and Information Technologies

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Correlation and Cluster Analysis of Fragments of the Earliest Slavonic Gospels

Keywords: Slavonic manuscripts of Gospels, linguistic textual criticism, correlation, cluster analysis

One of the tasks in the field of textual criticism of the Slavonic Gospel is finding efficient methods of classification of the many manuscripts. The majority of scholarship on this topic uses textologically significant variants (variant readings) of contexts, available both in short and complete aprakoses and the four Gospels, as material for studying the topic.

We present the results of a correlation analysis, followed by a clustering of the fragments of several gospel copies corresponding to each other from the historical corpus "Manuscript" (http://manuscripts.ru/mns/por-tal.main?p1=9&p_lid=1&p_sid=1). Lists of textual forms (bag of words) of the codices parts which match each other textologically (relating to the same cycle of readings written by the same Evangelist) were juxtaposed, and their corre-lation in pairs was evaluated. The results are used to find the degree of closeness (distance) of the fragments of this type between the manuscripts.

The experiments are based on the following theses: that the text of the compiled manuscripts cannot be studied without consideration of their textual composition, that the degree of closeness of the copies should be revealed, among other things, on the basis of linguistic analysis of textually compared texts (fragments) of different codices, and

that the statistical methods can be applied for comparison of the quantitative characteristics of the lists of words extracted from the fragments of different manuscripts matching each other.

The experimental part of the work was supported by the Russian Foundation for Basic Research (RFBR) in the framework of the project "A linguistic statistical analysis of one- component and multicomponent lexical units of the historical corpus Manuscript" (grant No. 18-012-00463).