

State University of Novi Pazar



BOOK OF ABSTRACTS
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**7th International Conference CONTEMPORARY PROBLEMS
OF MATHEMATICS, MECHANICS AND INFORMATICS**

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CPMMI 2022



**THE PROCESSING OF QUANTIFICATION IN PREDICATE
STATEMENTS IN THE SERBIAN LANGUAGE**

Ulfeta Marovac, Aldina Avdić, Nejma Čuljević
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Natural language statements are translated to the level of formal language to enable automated decision-making. This paper presents a model for processing quantification in predicate statements expressed in the Serbian language. Difficulties in formalizing the Serbian language due to the richness of its vocabulary and complex grammar are presented. The connections between predicate formulas in logic and predicate sentences in Serbian are given. The relationship between quantification and negation in predicate statements is specially treated. Lexical resources for recognizing and processing quantifiers in predicate sentences in the Serbian language have been created. By applying the law of predicate logic to natural language, the model for predicate expressions transformation is created.
