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Abstracts

Xu Yingying, Yu Yang, Fan Fengxiang,
Quantitative Linguistics and R.

1-12

Abstract. R is a vectorized language with combined features of a high-level computer language and dedicated software package. It has a wide range of string manipulation and pattern matching capabilities, of which its regular expressions are particularly useful. It provides a full-range of easy-to-use math and statistic functions. In addition, there are also versatile plotting systems for data visualization. It is a powerful tool for quantitative linguistic computing.

Otto Rottmann

On Word Length in German and Polish

13-20

Abstract. Word length is one of the most examined properties of language. It can be measured in terms of syllable or morpheme numbers. In the present article we bring some new models

Michal Místecký, Sergey Andreev, Gabriel Altmann

Piotrowski Law in Sequences of Activity and Attributiveness:
A Four-Language Survey

21-38

Abstract. The present study investigates the possibility of applying Piotrowski Law, a general mathematical principle of historical change in language, on two types of binary sequences – the activity strings, which consist of adjectives and verbs, and adnominal strings, comprising attributes and genitives. The fit is tested on various samples (sonnets, long poems, newspaper texts) written in Czech, Russian, English, and French. In the interpretation part, some ways of further research are sketched, including general employments in the theory of linguistic laws and parameter analyses. As to the latter, the study emphasises their use in testing the hypotheses on texts and in their classifications.

Emmerich Kelih, Sergey Andreev, Gabriel Altmann

Polysemy of some Parts of Speech

39-45

Abstract. The article analyzes the distribution of polysemy with nouns, verbs and adjectives in German, Russian, Slovak, Italian and Hungarian. An adequate model has been found and the problems of data collection, computation and modeling were discussed.

Sergey Andreev

Adnominal Valency Motifs in Sonnets

46-55

Abstract. Adnominal characteristics form an important element of syntactic structure of a sentence, being important both for its formal and semantic organization. One of possible approaches to the study of attributive relations consists in analyzing nouns from the point of view of their adnominal collocability. The number of attributes modifying nouns reflects their adnominal valencies, strings of

which form the basis for the quantitative analysis of text structure. This article is devoted to capturing – in Russian sonnets – the distribution of adnominal valency sequences, modelled into motifs, by mathematical functions. The exponential function plus 1 demonstrates a very good fit.

Sergey Andreev

A Study of Russian Adnominals

56-74

Abstract. In the present article, the development of adnominal types in Russian will be studied. On the selected texts from 1965 to 2008, the use of adnominals in terms of frequencies and the development of motif types are studied.

Gabriel Altmann

The Nature and Hierarchy of Belza-Chains

75-85

Abstract. Belza-chains are uninterrupted sequences of any type of linguistic entities. Their study shows the inertia of some kind of entities. Their length may be captured by usual functions.

Karl-Heinz Best, Gabriel Altmann

Word Length with G. Herdan

86-90

To the memory of G. Herdan who died 16. 10. 1968