Research output

On properly ordered coloring of vertices in a vertex-weighted graph

The combinatorics of Jeff Remmel

Encoding labelled p-Riordan graphs by words and pattern-avoiding permutations

Counting independent sets in Riordan graphs

On semi-transitive orientability of triangle-free graphs

Word-representability of split graphs

On semi-transitive orientability of Kneser graphs and their complements

Representing split graphs by words

On universal partial words for word-patterns and set partitions

Lower bounds, and exact enumeration in particular cases, for the probability of existence of a universal cycle or a universal word for a set of words

Distributions of several infinite families of mesh patterns

On the 12-representability of induced subgraphs of a grid graph

Word-representability of Toeplitz graphs

Riordan graphs I: structural properties

Distributions of mesh patterns of short lengths

On partially ordered patterns of length 4 and 5 in permutations
Riordan graphs II: spectral properties

On k-11-representable graphs

On shortening u-cycles and u-words for permutations

Polygon-circle and word-representable graphs

On a greedy algorithm to construct universal cycles for permutations

Solving computational problems in the theory of word-representable graphs

On the representation number of a crown graph

Графы, представимые в виде слов: обзор результатов

On pattern avoiding indecomposable permutations

Existence of μ-representation of graphs

On 132-representable graphs

A comprehensive introduction to the theory of word-representable graphs

On universal partial words

On universal partial words

New results on word-representable graphs
A note on p-Ascent Sequences

Pattern-avoiding alternating words

Word-representability of triangulations of grid-covered cylinder graphs

Word-representability of face subdivisions of triangular grid graphs

Semi-transitive orientations and word-representable graphs

Gray coding cubic planar maps

Avoiding vincular patterns on alternating words

Mahonian STAT on words

Word-representability of triangulations of rectangular polyomino with a single domino tile

Quadrant marked mesh patterns in 132-avoiding permutations III

Frame patterns in n-cycles

S-crucial and bicrucial permutations with respect to squares

(a,b)-rectangle patterns in permutations and words

Quadrant marked mesh patterns in 132-avoiding permutations II

On word-representability of polyomino triangulations
Number of cycles in the graph of 312-avoiding permutations

An involution on bicubic maps and $\beta(0, 1)$-trees

Representing graphs via pattern avoiding words

Words and Graphs

Enumeration of fixed points of an involution on $\beta(1, 0)$-trees

Number of cycles in the graph of 312-avoiding permutations

The 1-box pattern on pattern-avoiding permutations

On the number of self-dual rooted maps

Word-representable graphs and permutation patterns

Universal graphs and universal permutations

Restricted non-separable planar maps and some pattern avoiding permutations

Harmonic numbers, Catalan’s triangle and mesh patterns

An involution on beta(1,0)-trees

Generalized pattern matching conditions for $C_k \wr S_n$

Avoidance of boxed mesh patterns on permutations

Generalized pattern avoidance condition for the wreath product of cyclic groups with symmetric groups

On graphs with representation number 3
Quadrant marked mesh patterns in alternating permutations II  

Crucial and bicrucial permutations with respect to arithmetic monotone patterns  

Quadrant marked mesh patterns in alternating permutations  

Quadrant marked mesh patterns  

Quadrant marked mesh patterns in 132-avoiding permutations  

Enumerating (2+2) -free posets by the number of minimal elements and other statistics  

Alternation graphs  

Word-representability of line graphs  

A direct encoding of Stoimenov's matchings as ascent sequences.  

A spectral approach to consecutive pattern-avoiding permutations  

Enumerating (2+2)-free posets by indistinguishable elements  

On square-free permutations  

On the representability of line graphs  

Pattern avoidance in partial permutations  

Patterns in permutations and words  
(2+2)-free posets, ascent sequences and pattern avoiding permutations

Boolean complexes for Ferrers graphs

On avoidance of V- and ^-patterns in permutations

Enumerating (2+2)-free posets by the number of minimal elements and other statistics

A survey on partially ordered patterns

On shortest crucial words avoiding abelian powers

Avoiding substrings in compositions

Crucial abelian k-power-free words

Graphs capturing alternations in words

Pattern avoidance in partial permutations

Place-difference-value patterns: a generalization of generalized permutation and word patterns

Decompositions and statistics for β(1,0)-trees and nonseparable permutations

Crucial words for abelian powers

Equidistribution of descents, adjacent pairs, and place-value pairs on permutations
Rationality, irrationality, and Wilf equivalence in generalized factor order

Unlabeled (2+2)-free posets, ascent sequences and pattern avoiding permutations

Classification of bijections between 321- and 132-avoiding permutations

Word problem of the Perkins semigroup via directed acyclic graphs

On uniquely k-determined permutations

Classification of bijections between 321- and 132-avoiding permutations

Counting descents, rises, and levels, with prescribed first element, in words

Counting independent sets in certain classes of (almost) regular graphs

Counting ordered patterns in words generated by morphisms

On representable graphs

Partially ordered patterns and their combinatorial interpretations

Classifying descents according to parity

On uniquely k-determined permutations

Introduction to partially ordered patterns
Avoidance of partially ordered patterns in compositions

On multi-dimensional patterns

Classifying descents according to equivalence mod k

A spectral approach to pattern-avoiding permutations

Enumerating segmented patterns in compositions and encoding with restricted permutations

Classifying descents according to equivalence mod k

Independent sets on path-schemes
Kitaev, S., 2006, In: Journal of Integer Sequences. 9, 8 p., 06.2.2.

Segmented partially ordered generalized patterns

Partially ordered generalized patterns

Linear recurrences and Chebyshev polynomials

On multi-avoidance of generalized patterns

Simultaneous avoidance of generalized patterns

Partially ordered generalized patterns and their combinatorial interpretation

On unavoidable sets of word patterns

Pattern avoidance in matrices
Kitaev, S., Mansour, T. & Vella, A., 2005, In: Journal of Integer Sequences. 8, 16 p., 05.2.2.

Generating the Peano curve and counting occurrences of some patterns

Independent sets on path-schemes
The problem of the pawns

Crucial words and the complexity of some extremal problems for sets of prohibited words

On multi-avoidance of right angled numbered polyomino patterns

The sigma-sequence and counting occurrences of some patterns, subsequences and subwords

Partially ordered generalized patterns and k-ary words

Generalized pattern avoidance with additional restrictions

Multi-avoidance of generalised patterns

Generalized Patterns in Words and Permutations

There are no iterated morphisms that define the Arshon sequence and the sigma-sequence

Partially ordered generalized patterns

Projects
10th Nordic Combinatorial Conference 2010, Reykjavik University
Kitaev, S.

10th annual conference on Permutation Patterns 2012
Kitaev, S.

23rd International COference on Formal Power Series and Algebraic Combinatorics, Reykjavik University
Kitaev, S.

4th annual conference on Permutation Patterns 2006, Reykjavik University
Kitaev, S.

Global Engagements: Sergey Kitaev University of California, San Diego (UCSD)
Kitaev, S.
7/04/14 → 6/04/15

Riordan graphs
Kitaev, S.