Приложения комплексных чисел к решению геометрических задач

Фундаментальная литература

- 1.Справочник по математике для инженеров и учащихся втузов. — изд. 13-е. 1986 год.
  - Авторы: Бронштейн И. Н., Семендяев К. А.
  - Издание «Наука» (г. Москва)

Обзорная литература

- A review on geometric constraint solving
  - Authors: Zhihong Tang, Qiang Zou, Hsi-Yung Feng, Shuming Gao, Chenchu Zhou and Yusheng Liu (28.02.2022)
  - Source: arXiv.org (https://arxiv.org/pdf/2202.13795.pdf)
  - Abstract: This paper presents a comprehensive review of geometric constraint solving in parametric computer-aided design (CAD), with the major focus on its advances in the last 15 years. Geometric constraint solving can date back to the very first CAD prototype, Sketchpad, in the 1960s, but serious research studies were carried out only after parametric CAD was introduced in the late 1980

Synthesis of Modeling, Visualization, and Programming in GeoGebra as an Effective Approach for Teaching and Learning STEM Topics

- Authors: Rushan Ziatdinov, James R. Valles Jr. (27.01.2022)
- Source: MDPI Mathematics (https://www.mdpi.com/2227-7390/10/3/398/pdf) Impact factor: 2,258 (MDPI), Q1 (Mathematics) (JCR)
- Abstract: GeoGebra is an interactive geometry, algebra, statistics, and calculus application designed for teaching and learning math, science, and engineering. Its dynamic interface allows its users to accurately and interactively visualize their work, models, and results. GeoGebra employs the synthesis of three key features: modeling, visualization, and programming (MVP).
- 0 citations

On the Minimum-Area Parallelogram Annulus Problem

- Author: Sang Won Bae (11.02.2022)
- Source: MDPI Symmetry (https://www.mdpi.com/2073-8994/14/2/359/pdf) Impact factor: 2,713 (MDPI), Q1 (CiteScore)
- Abstract: The minimum-area parallelogram annulus problem is studied, in which one wants to compute a parallelogram annulus of minimum area that includes n input points in the plane. Extending an usual, doughnut-shaped circular annulus, a parallelogram annulus is defined to be a region between two edge-parallel parallelograms.
- 0 citations

Beyond bags of features: Spatial pyramid matching for recognizing natural scene categories

- Authors: Lazebnik, S., Schmid, C., Ponce, J. (2006)
- Source: Proceedings of the IEEE Computer Society Conference on Computer Vision and Pattern Recognition. Impact factor — 39.8 (scopus.com) , A (ERA)
- Abstract: This paper presents a method for recognizing scene categories based on approximate global geometric correspondence. This technique works by partitioning the image into increasingly fine sub-regions and computing histograms of local features found inside each sub-region
- 6697 citations

Isogeometric analysis: CAD, finite elements, NURBS, exact geometry and mesh refinementcess

- Authors: Hughes, T.J.R., Cottrell, J.A., Bazilevs, Y. (2005)
- Computer Methods in Applied Mechanics and Engineering. Impact factor — 6,756 (sciencedirect.com)
- Abstract: The concept of isogeometric analysis is proposed. Basis functions generated from NURBS (Non-Uniform Rational B-Splines) are employed to construct an exact geometric model. For purposes of analysis, the basis is refined and/or its order elevated without changing the geometry or its parameterization.
- 3778 citations

Узкоспециализированные статьи

On Con-Numbers and Con-Matrices with Applications to Control Systems

- Author: WU Aiguo (February 2022)
- Source: Springer (https://link.springer.com/article/10.1007/s11424-021-0081-9) Impact factor — 2.4 (Scopus), Q2 (CS) (academic-accelerator.com)
- Abstract: In this paper, the concepts of con-numbers and con-matrices are proposed by the introduction of conjugate operators into the field of complex numbers, and some properties of these two concepts are derived.
- 0 citations