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By establishing a communication platform, *Journal of AppliedMath* would like to encourage researchers to define the use of mathematics in various disciplines, thus contributing to solving problems related to our daily life. In the recent published issue of this journal, there are twelve original research articles, one review article, and one perspective article, which offer an engaging discussion on discrete mathematics, calculus, and the applications of mathematical analysis and approaches to practical problems. And most authors of those articles come from Eastern Europe and Asia. Furthermore, the investigations in those papers combine mathematics with fields like statistics and physics that are closely related to mathematics. Those articles provide readers with valuable information of the up-to-date mathematical research, promoting further study in calculus and the application of mathematical analysis and approaches.

Scholars from Cornell University and Stanford University proposed and evaluated six different control architectures based on their ability to control the trajectory of the dynamic-system position and speed, their running time, and quadratic cost. The robustness of the control architecture to uncertainties in inertia and sensor noise is also analyzed. The analysis and experimental tests reveal the most suitable control of the drone's camera gimbal rotation[1].

Several articles in this issue provide an exploration of calculus. Specifically, these studies discuss issues related to variable order derivative, curvature, and differential equations. In the paper of Fedotov[2], a new definition of a variable order derivative is given, and an operator of the Hermite-Fejér type is built to jointly interpolate the function and its derivative of variable order. The upper estimate of the norm of this operator is obtained, and this norm has been shown to be limited. Abduragimov[3] discussed a boundary value problem for one non-linear second-order functional differential equation on the segment [0, 1] with an integral boundary condition at one of the ends of the segment.

Since statistics has a close relationship with mathematics, statistical approaches and models are widely applied to mathematical research in order to solve practical problems. For example, Lapina

and Gorikhovskii[4] used data on the profits of the electronic of different strategies. Then, a methodology for finding the optimal strategy was described, and a clustering of establishments was performed using analysis of variance to customize the optimal strategy.

Articles in this issue provide a discussion of research related to discrete mathematics. Ide[5] introduced an interpolation technique for finding roots of nonlinear equations, and this method derived from the Newton forward interpolation method, with fast convergence and the same order of convergence of the method proposed by J. Sanaullah.

Additionally, this issue's articles also focus on the applications of mathematical models and techniques in industries such as finance, medicine, and social concerns, offering readers fresh insights into mathematical study.

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Conflict of interest

The author declares no conflict of interest.

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