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Editorial

Launch of a new journal on applied mathematics: Editorial review on Vol. 1 No. 1

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The charm of applied mathematics resides in its powerful ability to resolve issues across a wide range of fields. Nowadays, all industries are currently experiencing growth, but in parallel, corresponding issues develop and wait to be resolved. Thus, applied mathematics begins to exert its effectiveness. We launched *Journal of AppliedMath*, a new international peer-reviewed journal focusing on the application of mathematical concepts and methods to various fields. Thanks to the contributions of all the authors and with the support of our Editorial Board and editorial staff, we successfully published the first issue of this journal.

This issue provides an exploration of how applied mathematics solves problems and helps to discover some rules in fields such as music, aerospace, and finance. Artificial intelligence is an important branch of mathematics, and articles in this issue also examine its practical uses.

Mathematics is the foundation of statistical analysis as a method. Articles in this issue explore the application of statistical analysis to music. In one paper, the authors analyzed a popular Tagore song from the perspective of statistics[1]. Using statistical analysis methods, Chakraborty *et al.*[2] explored the efficacy of music interventions in combating stress.

Artificial intelligence is being used in a growing number of industries as a result of the quick advancement of scientific technology. According to Huang and Sands[3], who come from Cornell University and Stanford University, respectively, accurate dynamic system parameters can be found by utilizing a learning method, and a controller can produce precise signals for tracking desirable state trajectories with accurate dynamic system parameters. In their search, they proposed a modified method to improve the accuracy of dynamic system parameters and proved that this method has global convergence of both state error and parameter estimation error[3]. Thus, it can be seen that artificial intelligence does play a significant role in solving problems in some fields.

Additionally, this issue offers an exploration of ordinary differential equations. Shamaoon *et al.*[4] used the classical lie symmetry approach to derive ordinary differential equations that are well suited for qualitative study and used a powerful multi-

plier approach to establish nontrivial conservation laws and exact solutions for those equations[4]. These nontrivial conservation laws improved our knowledge of the system's conservation properties.

In this issue, Bochkov[5] presented an algorithm which can provide decision support in the problem of group-selection of critical infrastructure objects of a structurally complex system. The obtained results can be applied to multiple critical industries.

As a new journal, *Journal of AppliedMath* strives to build a stable platform for publishing high-quality papers. We deeply appreciate the authors' permission to authorize us to share their insightful ideas and welcome more researchers across the world to submit their newly findings to this journal.

Conflict of interest

The authors declare no conflict of interest.

References

1. Chakraborty S, Singh P. Statistical analysis of a Tagore song based on Raga Kafi. Journal of AppliedMath 2023; 1(1): 21–27. doi: 10.59400/jam.v1i1.85.
2. Chakraborty S, Prasad A, Chakraborty A, Singh P. Impact of Hindustani ragas in stress management: A statistical study. Journal of AppliedMath 2023; 1(1): 48–54. doi: 10.59400/jam.v1i1.143.
3. Huang BR, Sands T. Novel learning for control of nonlinear spacecraft dynamics. Journal of AppliedMath 2023; 1(1): 1–20. doi: 10.59400/jam.v1i1.42.
4. Shamaoon A, Ali Z, Maqbool Q. Conservation laws, exact solutions and nonlinear dispersion: A lie symmetry approach. Journal of AppliedMath 2023; 1(1): 55–63. doi: 10.59400/jam.v1i1.95.
5. Bochkov AV. Towards a solution to the problem of safety management of structurally complex systems. Journal of AppliedMath 2023; 1(1): 30–44. doi: 10.59400/jam.v1i1.68.