The Twelveth International Workshop on Mathematical Models and their Applications (IWMMA 2023) will provide an international forum for the presentation of original results in mathematical modeling for software- and hardware applications in various fields. It will stimulate lively discussions among researchers as well as industrialists.

Papers may discuss theories, applications, evaluation, limitations, general tools and techniques. Discussion papers that critically evaluate approaches or processing strategies and prototype demonstrations are especially welcome.

The workshop will cover a broad set of research topics including, but not limited to:

- Mathematical models and their applications
- Mathematical modelling techniques
- Optimization techniques, incl. multi-criterion optimization and decision making support
- Hybrid methods of mathematical modelling and optimization in complex systems
- Data mining and knowledge discovery
- Machine learning
- Pattern recognition
- Learning in evolutionary algorithms
- Genetic programming
- Artificial neural networks
- Computational intelligence and its applications
- Bio-inspired and swarm intelligence
- Text/Web/Data mining
- Human-Computer Interaction
- Natural language processing
- Applications in engineering, natural sciences, social sciences, computer science, etc.

All papers accepted and presented at the workshop will appear in the Conference Proceedings and will be published in ITM Web of Conferences, indexed by Web of Science (Core Collection).

Extended versions of papers presented at the conference can be published in a upcoming volume of the peer-reviewed journal “Control systems and information technology” (the journal is included in the List of Russian peer-reviewed scientific journals by Higher Attestation Commission of the Ministry of Education and Science of Russia).

Extended variants of selected by program committee papers presented at the conference will be recommended for publication in the peer-reviewed open access journal "Algorithms" indexed in WoS and Scopus in the Special Session Issue "Mathematical Models and Their Applications V".

The workshop will be running as a virtual event.

The workshop website: [https://sites.google.com/view/iwmma2023](https://sites.google.com/view/iwmma2023)

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