

Special Issue

Theoretical Methods and Applications of the Large Language Models

Message from the Guest Editor

In recent years, natural language processing (NLP) technologies represented by large language models have developed rapidly, greatly advancing the fundamental theoretical research and technological applications of artificial intelligence, as well as having a huge impact on various aspects of human society. NLP, computational linguistics, and large language models have become current international research hotspots in both academia and business. Therefore, in this technological context, what are the key technical and theoretical problems in NLP and computational linguistics research? How does the large language model work in specific application scenarios?

- Automatic summarization;
- Automatic reasoning based on natural language;
- Human-computer interaction and dialogue systems;
- Information extraction and text mining;
- Language generation and automated writing;
- Language modeling;
- Language resources and evaluation;
- Linguistic theories, cognitive modeling and psycholinguistics;
- Machine learning for NLP;
- Machine translation and multilinguality;
- NLP applications;
- Question answering;
- Sentiment analysis, stylistic analysis, and argument mining.

Guest Editor

Prof. Dr. Chengqing Zong

State Key Laboratory of Multimodal Artificial Intelligence Systems,
Institute of Automation, Chinese Academy of Sciences, No. 95, Zhong
Guan Cun East Road, Beijing 100190, China

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Mathematics
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
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Message from the Editor-in-Chief

The journal *Mathematics* publishes high-quality, refereed papers that treat both pure and applied mathematics. The journal highlights articles devoted to the mathematical treatment of questions arising in physics, chemistry, biology, statistics, finance, computer science, engineering and sociology, particularly those that stress analytical/algebraic aspects and novel problems and their solutions. One of the missions of the journal is to serve mathematicians and scientists through the prompt publication of significant advances in any branch of science and technology, and to provide a forum for the discussion of new scientific developments.

Editor-in-Chief

Prof. Dr. Francisco Chiclana

School of Computer Science and Informatics, De Montfort University,
The Gateway, Leicester LE1 9BH, UK

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