Special Issue

Decidability of Logics and Their Theories and Combinations

Message from the Guest Editors

The decidability problem was clearly stated by David Hilbert at the International Congress of Mathematicians held in Paris in 1900. Analyzing whether a logic is decidable or not became part of properties worth exploring. Decidability can be discussed in a theoretical way, but it is also an important requirement when introducing new logics for coping with sophisticated applications. Decidability is either proved directly, or by reduction (via an adequate computable map) to decidability of another logic or theory or by showing other properties that imply decidability. Due to the many applications where several logics must be put together, it is fundamental to discuss preservation of decidability when combining logics and theories, if not in general, at least by providing sufficient conditions for the preservation. This Special Issue collects original research papers with the aim to exploit theoretical aspects of decidability but also to show decidability for new logics and theories. Papers about preservation of decidability, either in the form of general results or specific cases for logics targeted for significant applications, are also welcome.

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Deadline for manuscript submissions

closed (31 May 2022)

Mathematics

an Open Access Journal by MDPI

Impact Factor 2.2
CiteScore 4.6

mdpi.com/si/85009

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About the Journal

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.

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