

On Logical Encodings for Argumentation-Based Reasoning (Abstract)

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Abstract

From the early logical encodings of argumentation frameworks and semantics [1] to the most efficient SAT-based argumentation solvers presented at the International Competition on Computational Models of Argumentation (ICCA) [2], translating argumentation-based reasoning into logical formalisms has proven highly valuable over the years.

Numerous extensions of Dung's seminal abstract framework [3] have been proposed, including the addition of support relations, higher-order or collective interactions [4], and incompleteness [5].

This invited talk provides an overview of enriched abstract argumentation frameworks and presents a modular, generic logical encoding that covers several families of such frameworks [6].

Declaration on Generative AI

During the preparation of this work, the author used GPT-5.6 in order to Grammar and spelling check. After using this tool, the author reviewed and edited the content as needed and takes full responsibility for the publication's content.

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