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Preface

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This special issue contains a selection of papers presented at **ICLA2021: 9th Indian Conference on Logic and its Applications** held online from March 4 to 7, 2021.

The *Indian Conference on Logic and its Applications* series aims to bring together researchers from a wide variety of fields that formal logic plays a significant rôle in, along with mathematicians, philosophers, computer scientists, linguists and logicians studying foundations of formal logic in itself. A special feature of this conference comprises of studies in systems of logic in the Indian tradition, and historical research on logic. The biennial conference is organized by the Association for Logic in India.

The Programme Committee of ICLA 2021 considered papers presented at the conference and invited the authors of a subset of them, as well as the speakers who gave invited talks at the conference, to submit articles for this special issue of JoLLI. After the review process, six papers have been chosen for publication in the journal.

The papers in the issue span a wide range of themes. We have contributions to algebraic logic and model theory and philosophical logic, some focussing on foundations and some discussing applications. While Nikolay Bazhenov presents results on the model theory of computable Heyting algebras, Abhisekh Sankaran offers results on the complexity of Feferman-Vaught decomposition of first-order sentences. Prosenjit Howlader and Mohua Banerjee take up Kripke contexts formal concept analysis, providing representation theorems for topological double Boolean algebras with operators. Hans van Ditmarsch, Didier Galmiche and Marta Gawek combine epistemic logics with separation logics offering new ways of reasoning about resource updates.

If these are foundational considerations leading to applications, logicians like to dig out reasoning from applications as well. Adnan Darwiche and Auguste Hirth "look under the hood" to unveil the reasoning underneath Boolean machine learning classifiers.

On a very different plane, Kees van Berkel, Agata Ciabattoni, Elisa Freschi, Francesca Gulisano and Maya Olszewski study the Sanskrit philosophical school of

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Mīmāṃsā to analyse not only classical paradoxes but also contemporary ones in deontic logic. They show how building bridges to the work of ancient logicians can lead us to challenging currently prevalent design choices.

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