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**Real-World Reasoning: Toward Scalable, Uncertain Spatiotemporal, Contextual and Causal Inference**

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- The book gives the first accessible, reasonably comprehensive and unified review of the various existing approaches to any of spatial, temporal or contextual logic
- The book breaks new research ground via explaining theoretically and by means of examples how uncertain logical inference can be applied in the context of real-world examples of spatial, temporal and contextual logic

The general problem addressed in this book is a large and important one: how to usefully deal with huge storehouses of complex information about real-world situations. Every one of the major modes of interacting with such storehouses – querying, data mining, data analysis – is addressed by current technologies only in very limited and unsatisfactory ways. The impact of a solution to this problem would be huge and pervasive, as the domains of human pursuit to which such storehouses are acutely relevant is numerous and rapidly growing. Finally, we give a more detailed treatment of one potential solution with this class, based on our prior work with the Probabilistic Logic Networks (PLN) formalism. We show how PLN can be used to carry out realworld reasoning, by means of a number of practical examples of reasoning regarding human activities in real-world situations.