

Expires 15 March 2018

An Introduction to Description Logic

Franz Baader

Technische Universität, Dresden

Ian Horrocks

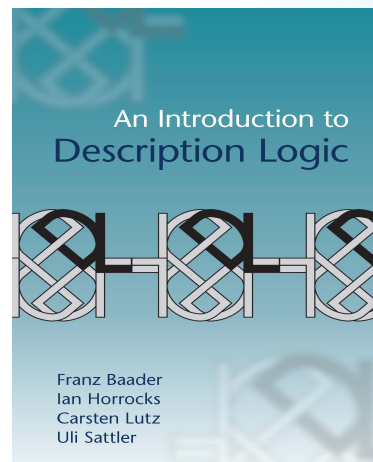
University of Oxford

Carsten Lutz

Universität Bremen

and Uli Sattler

University of Manchester



Description logics (DLs) have a long tradition in computer science and knowledge representation, being designed so that domain knowledge can be described and so that computers can reason about this knowledge. DLs have recently gained increased importance since they form the logical basis of widely used ontology languages, in particular the web ontology language OWL. Written by four renowned experts, this is the first textbook on description logics. It is suitable for self-study by graduates and as the basis for a university course. Starting from a basic DL, the book introduces the reader to their syntax, semantics, reasoning problems and model theory and discusses the computational complexity of these reasoning problems and algorithms to solve them. It then explores a variety of reasoning techniques, knowledge-based applications and tools and it describes the relationship between DLs and OWL.

1. Introduction; 2. A basic DL; 3. A little bit of model theory; 4. Reasoning in DLs with tableau algorithms; 5. Complexity; 6. Reasoning in the ϵL family of Description Logics; 7. Query answering; 8. Ontology languages and applications; Appendix A. Description Logic terminology; References; Index.

April 2017

228 x 152 mm 260pp 30 b/w illus.

Hardback 978-0-521-87361-1

<i>Original price</i>	<i>Discount price</i>
£59.99	£47.99
\$79.99	\$63.99

Paperback 978-0-521-69542-8

<i>Original price</i>	<i>Discount price</i>
£29.99	£23.99
\$39.99	\$31.99



www.cambridge.org/alerts

For the latest in your field

For more information, and to order, visit:

www.cambridge.org/9780521695428

and enter the code BAADER2017 at the checkout

CAMBRIDGE
UNIVERSITY PRESS