



Adrian Groza

Modelling Puzzles in First Order Logic

- Provides an extended collection of warm-up and fun activities to start a lecture on logic or computer science
- Illustrates the complete process of modelling and solving puzzles with theorem provers
- Maximizes students insights into modelling with logic, interpretation models, or theorem proving
- Shares many tips and examples on formalising natural language into logic

Keeping students involved and actively learning is challenging. Instructors in computer science are aware of the cognitive value of modelling puzzles and often use logical puzzles as an efficient pedagogical instrument to engage students and develop problem-solving skills.

This unique book is a comprehensive resource that offers teachers and students fun activities to teach and learn logic. It provides new, complete, and running formalisation in Propositional and First Order Logic for over 130 logical puzzles, including Sudoku-like puzzles, zebra-like puzzles, island of truth, lady and tigers, grid puzzles, strange numbers, or self-reference puzzles.

Solving puzzles with theorem provers can be an effective cognitive incentive to motivate students to learn logic. They will find a ready-to-use format which illustrates how to model each puzzle, provides running implementations, and explains each solution.

This concise and easy-to-follow textbook is a much-needed support tool for students willing to explore beyond the introductory level of learning logic and lecturers looking for examples to heighten student engagement in their computer science courses.

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