

# Efficient Evaluation of Logic Programs

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## Abstract

Answer Set Programming (ASP) combines an expressive declarative language with efficient solving technology, making it suitable for modeling complex combinatorial problems. State-of-the-art ASP systems based on GroundSolve approach suffer from the grounding bottleneck, which can limit applicability. Recently, different alternative evaluation techniques have been introduced, including compilation-based ASP solving, which has emerged as a promising approach to overcome the grounding bottleneck. In this tutorial we provide an overview of compilation-based techniques by showing how logical rules can be compiled into customized propagators and present the proasp system, the first compilation-based ASP solver which integrate grounding and compilation within a unified framework.