ACI-1642397 SI2-SSE: A Next-Generation Decision Diagram Library Andrew Miner (PI), Gianfranco Ciardo (Co-PI) Iowa State University

MEDDLY: Multi-terminal and Edge-valued Decision Diagram LibrarY Available at https://asminer.github.io/meddly/

MDD

What is MEDDLY?

- A decision diagram library: MDDs, MTMDDs, EVMDDs
- DDs are graph data structures
- DDs can compactly encode functions of discrete variables
- State-of-the-art algorithms

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NSF CSSI PI Meeting, Seattle, WA, February 13-14, 2020

MTMD

Easily integrated

 x_2

MDD

Why use MEDDLY?

- Digital logic verification
- Model checking, counterexamples
- Integer constraint problems
- Applications storing integer vectors
- Possibly huge memory+time savings if the problem has structure

