

Causality in Multi-Agent Planning

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A Brief Overview

My Contributions

What is Causality?

How do we Model Causality?

Counter Factual Reasoning

@TODOdiagram

Halpern's Causality?

Causal Settings

Structural Equations

But-For Causality

Halpern's Original Causality

Halpern's Updated Causality

Halpern's Modified Causality

Causality in Planning

Why is Planning Causality Different?

What Extra Value does Causality Planning Offer?

Planning Tasks

Multi-agent Planning Tasks

Plans

Causal Plan Settings

CPS New Operations

But-For Causality Planning

Original Causality Planning

Updated Causality Planning

Modified Causality Planning

Example 1: Forest Fire

Example 2: Rock Throwing

Conclusions

Future Work