

# Interval Counterexamples for Loop Invariant Learning

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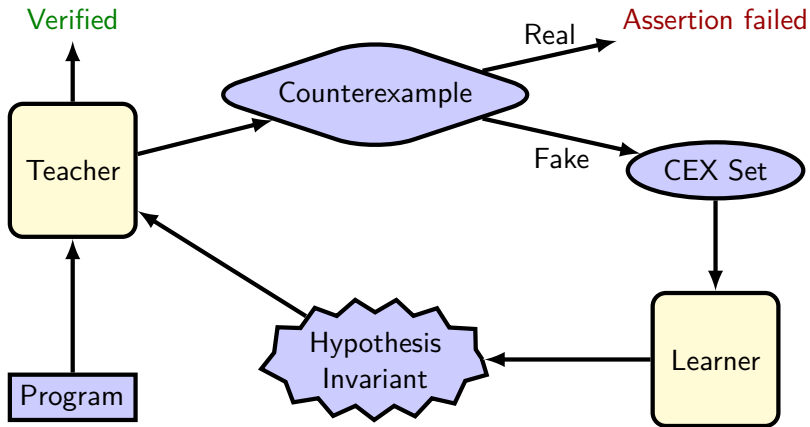
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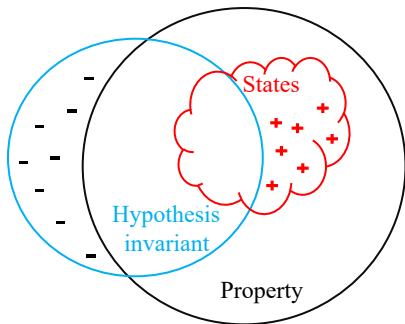


# Loop Invariant Learning



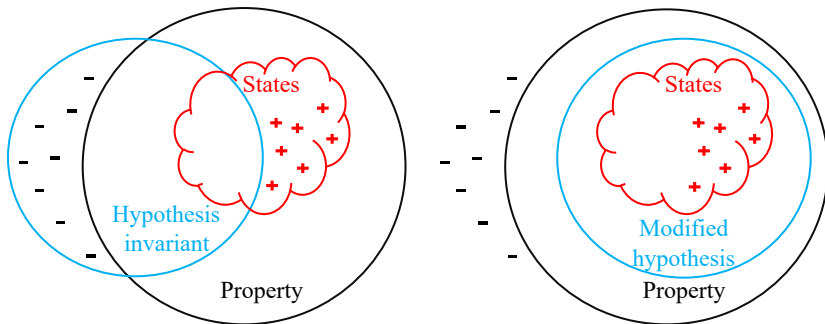
## Positive and negative counterexamples

- Positive counterexample weakens the hypothesis invariant.
- Negative counterexample strengthens the hypothesis invariant.



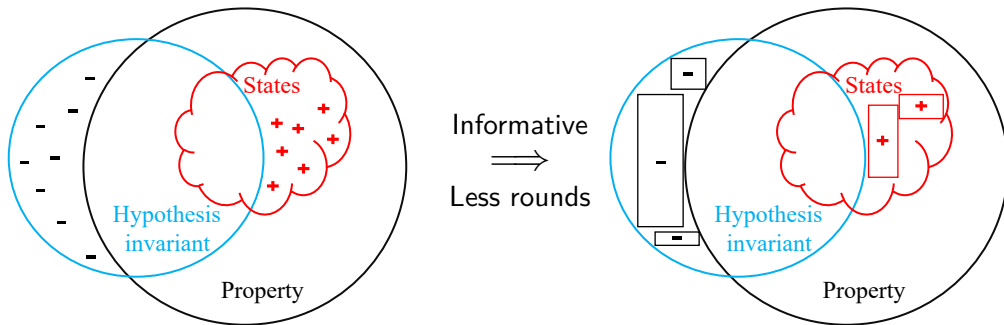
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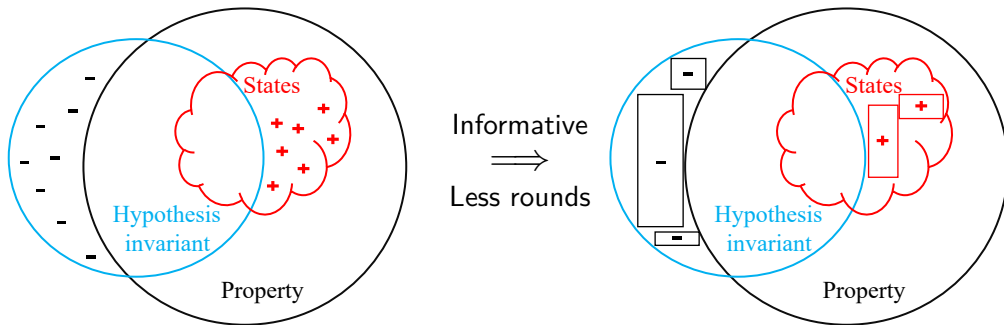
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- We design an **interval decision tree** learner to adapt to interval counterexamples.

*Thanks!*