

# Termination Analysis with Algorithmic Learning

Wonchan Lee

Seoul National University

Research Associate

[wcllee@ropas.snu.ac.kr](mailto:wcllee@ropas.snu.ac.kr)

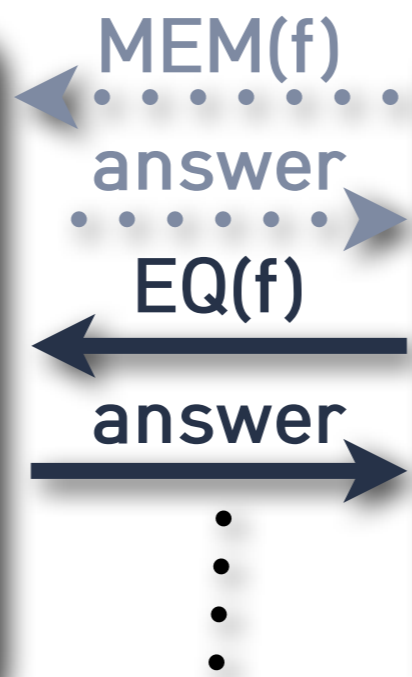
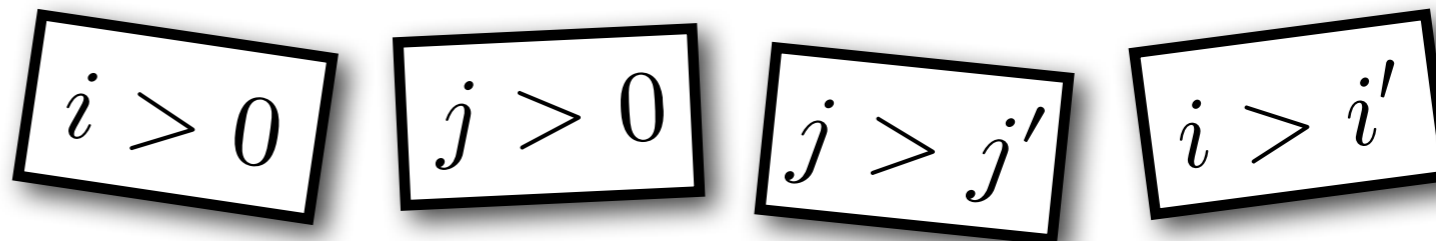
(joint work with Bow-yaw Wang and Kwangkeun Yi)

# How we prove termination

## Program

```
while (i > 0 && j > 0) {  
  if (*) i--; else j--;  
}
```

## Atomic Predicates



$$i > 0 \wedge j > 0 \wedge (i > i' \vee j > j')$$

## Transition Invariant