

Demo: AlgoVer

Institut für Theoretische Informati



# Interaction in Interactive Program Verification



#### Interaction on:

- different levels of abstraction for interaction
- different representations of the same problem

Switch between levels and/or representations is necessary.

## Involved Entities in Interactive Program Verification



- program code
- specification
- proof representation/proof obligation
- proof guidance/interaction

## Problems with Interaction in State-of-the-Art Systems



- interaction on different representations
- hidden dependencies between representations
- context change cognitively challenging for the user
- missing interaction possibilities on representations

#### Goal of our concept



An interactive program verification system that allows implementing and researching different interaction concepts:

- integration of different representations as views
- integration of different interaction concepts
- seamless transition between views

### Objectives



The user is ...

- ... able to use appropriate view at all times
- ② ... can easily switch views without loosing focus
- ${\color{red} \bullet}$  ... is able to determine the results of costly actions before executing them