

Let Var be a set of typed variables.

A *program graph* over Var is a tuple

$$\mathcal{P} = (Loc, Act, Effect, \hookrightarrow, Loc_0, g_0) \text{ where}$$

- Loc is a (finite) set of locations, i.e., control states,

- Act a set of actions,

- $Effect : Act \times Eval(Var) \rightarrow Eval(Var)$

- $\hookrightarrow \subseteq Loc \times Cond(Var) \times Act \times Loc$

specifies conditional transitions of the form $l \xrightarrow{g:\alpha} l'$

- $Loc_0 \subseteq Loc$ is the set of initial locations,

- $g_0 \in Cond(Var)$ initial condition on the variables.