1 Preliminaries

1.1 Transition Systems

Motivation of transition systems
The following definition is directly taken form Principles of Modelchecking, Baier
p. 20
A *transition system* TS is a tuple where

- is a set of states,

- is a set of actions,

- $\subseteq \times \times$ is transition relation,

- $\subseteq$ is a set of initial states,

- is a set of atomic propositions, and

- :

A transition system is called *finite* if , and are finite.