

Current L3F Proposal

SBO

SBO : Systems Biology Ontology

Ontology for System Biology, especially in the context of computational modeling

- [-] **SBO:0000000 - sbo**
 - [+] **P** [SBO:0000002 - quantitative parameter](#)
 - [+] **P** [SBO:0000004 - modelling framework](#)
 - [+] **P** [SBO:0000064 - mathematical expression](#)
 - [-] **P** [SBO:0000231 - event](#)
 - [+] **I** [SBO:0000167 - reaction](#)
 - [-] **I** [SBO:0000168 - control](#)
 - I** [SBO:0000169 - inhibition](#)
 - [-] **I** [SBO:0000170 - stimulation](#)
 - I** [SBO:0000171 - necessary stimulation](#)
 - I** [SBO:0000172 - catalysis](#)
 - I** [SBO:0000239 - allosteric control](#)
 - [+] **I** [SBO:0000205 - biochemical process](#)
 - [+] **I** [SBO:0000237 - combination](#)
 - [+] **I** [SBO:0000342 - molecular interaction](#)
 - I** [SBO:0000357 - perturbation](#)
 - I** [SBO:0000358 - observable](#)
 - [+] **I** [SBO:0000232 - obsolete event](#)
- [+] **P** [SBO:0000235 - participant](#)

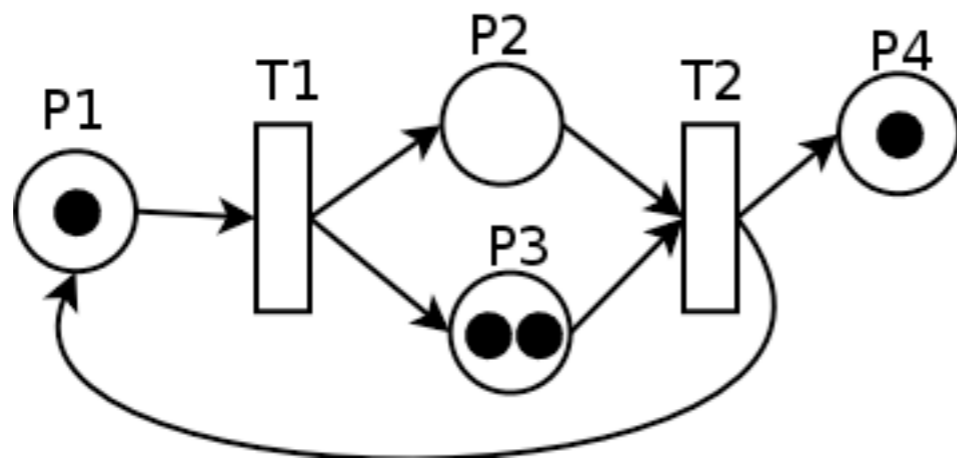
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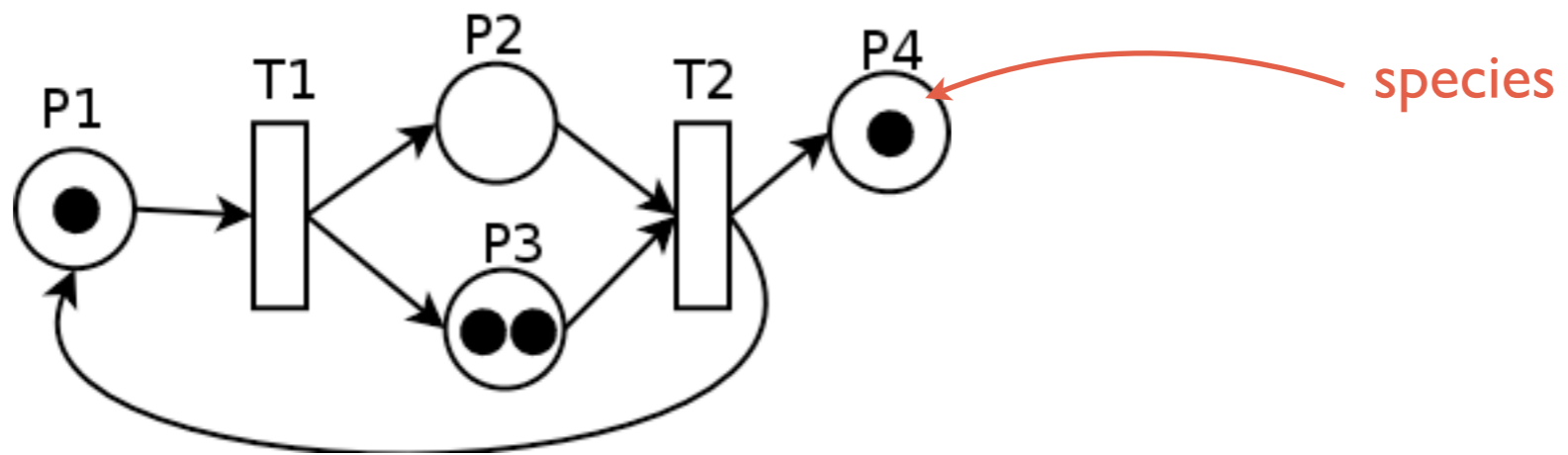
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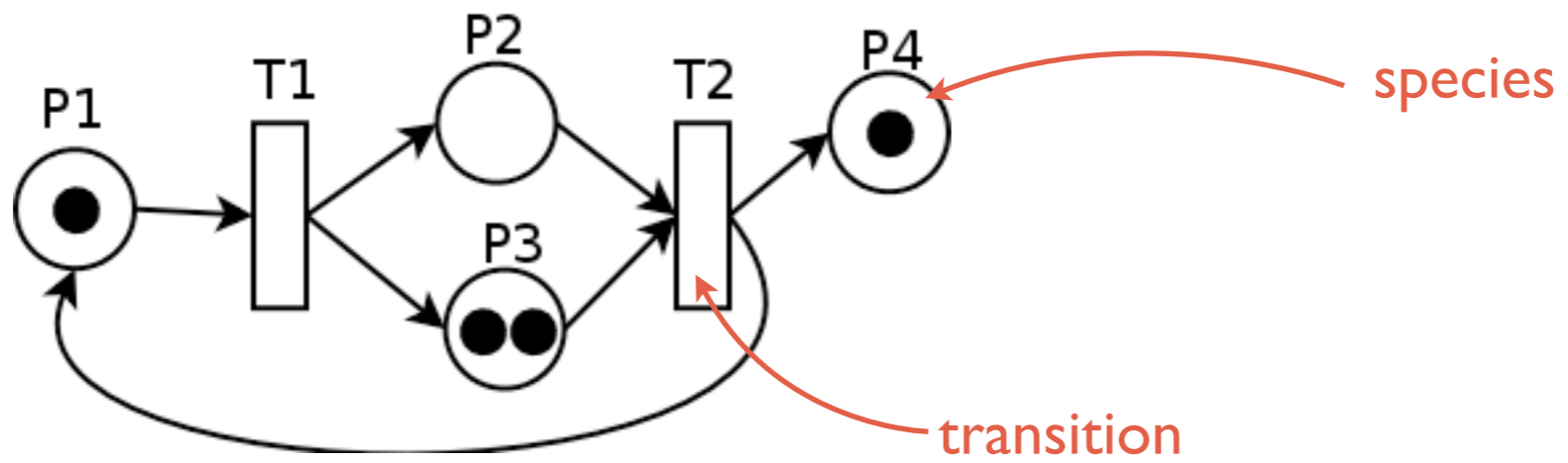
Petri Net



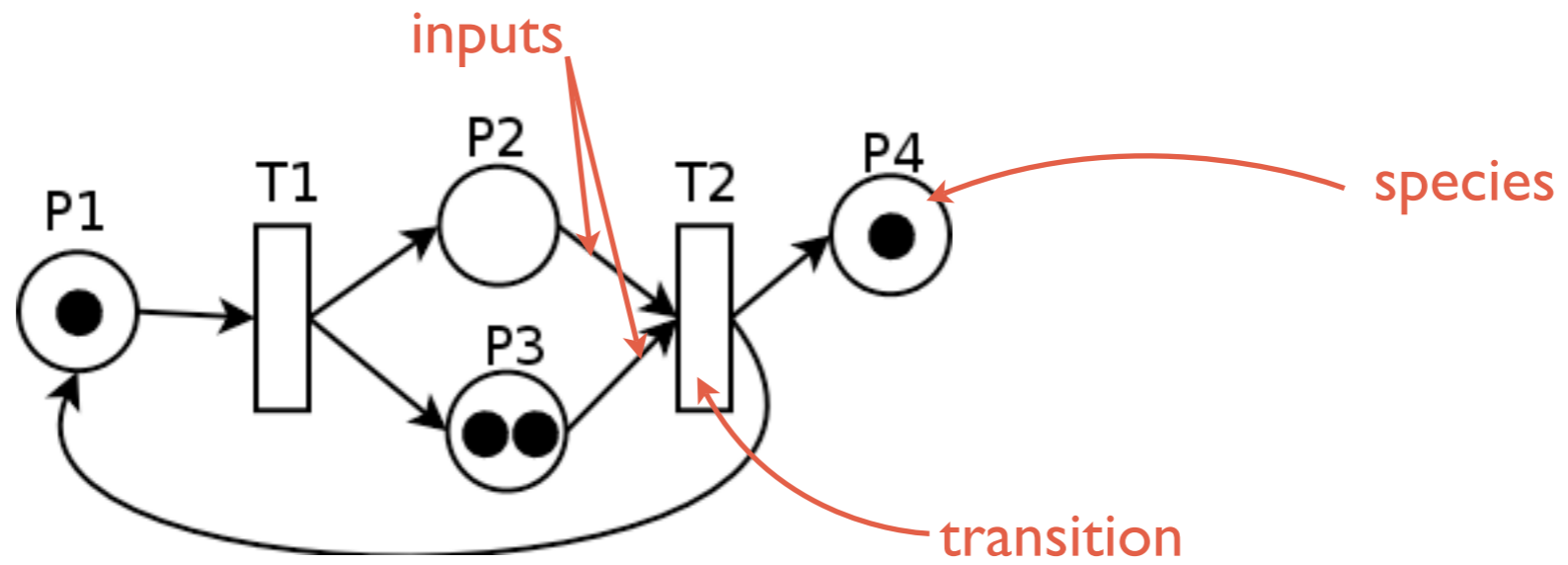
Petri Net



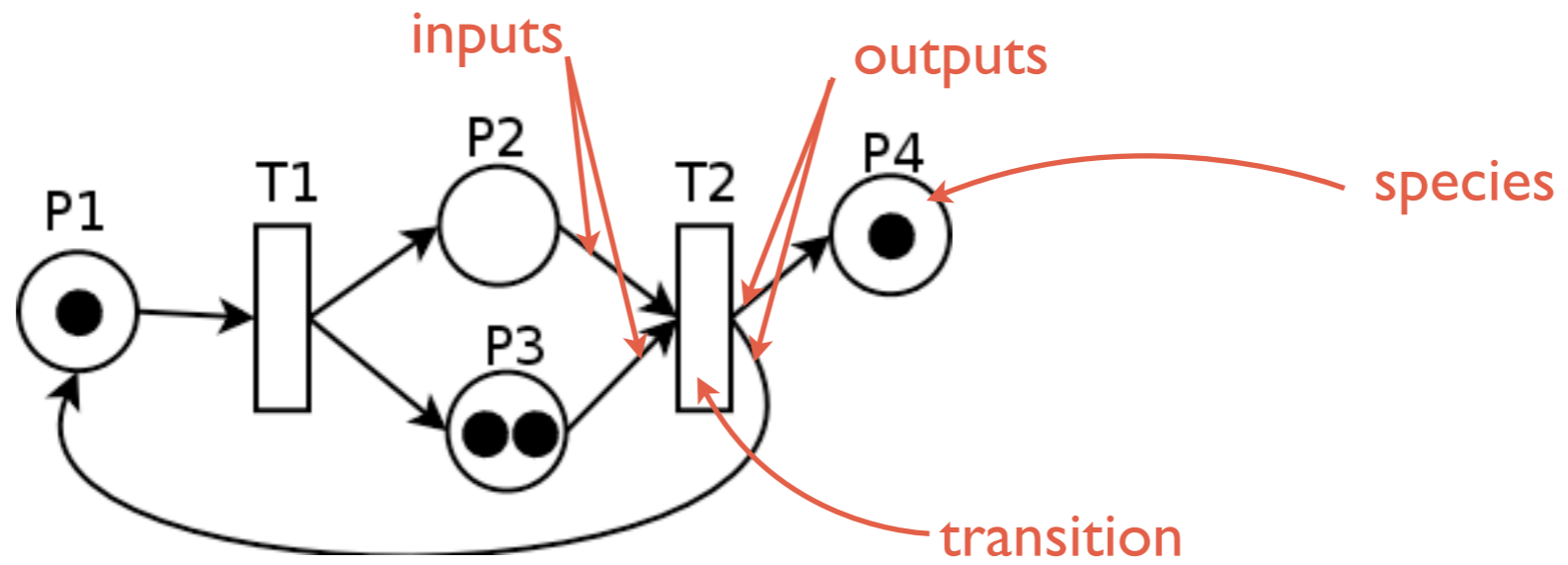
Petri Net



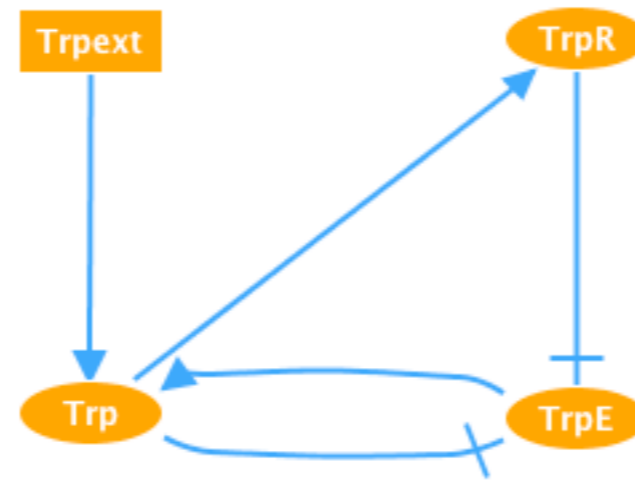
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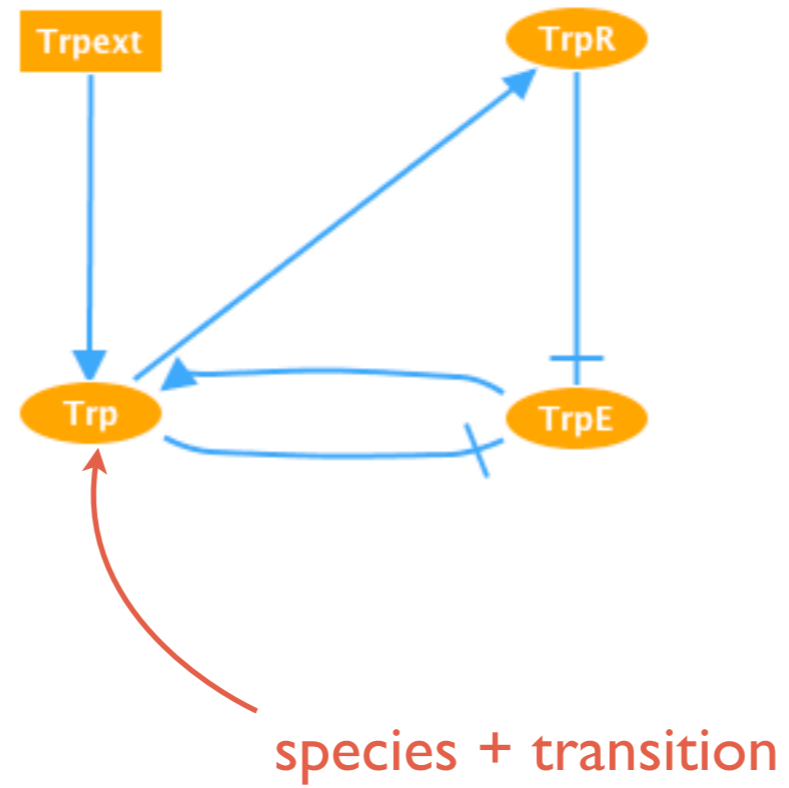
Petri Net



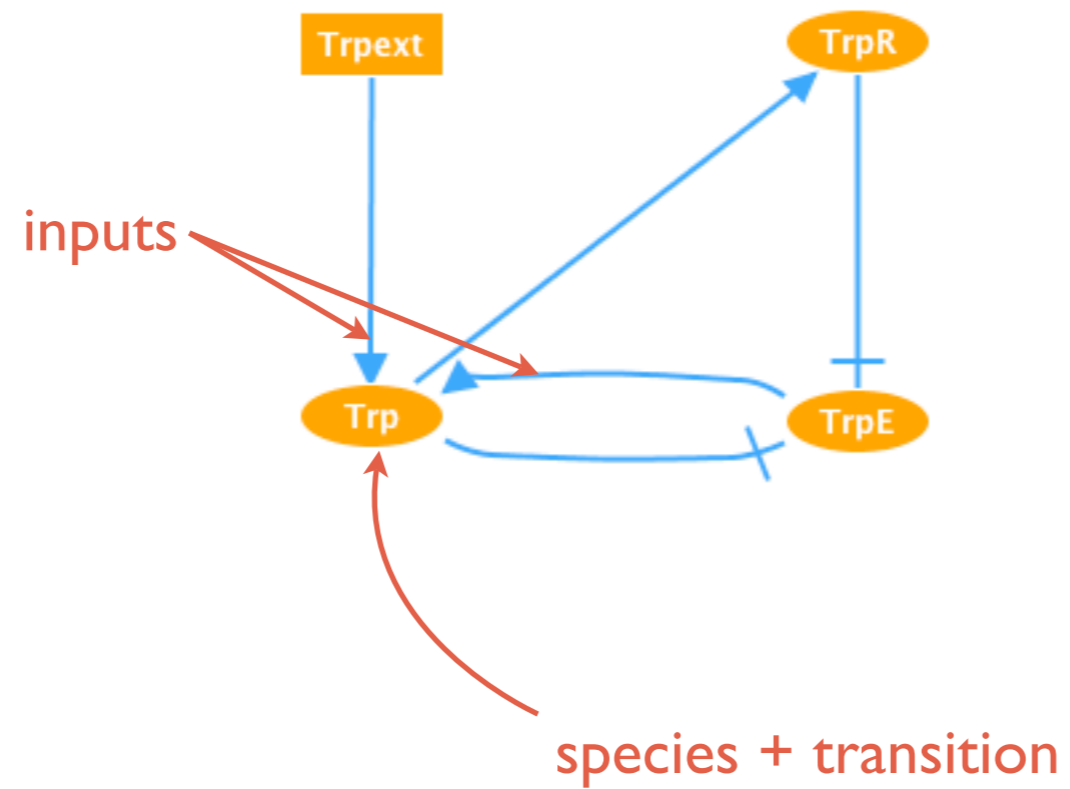
Logical model



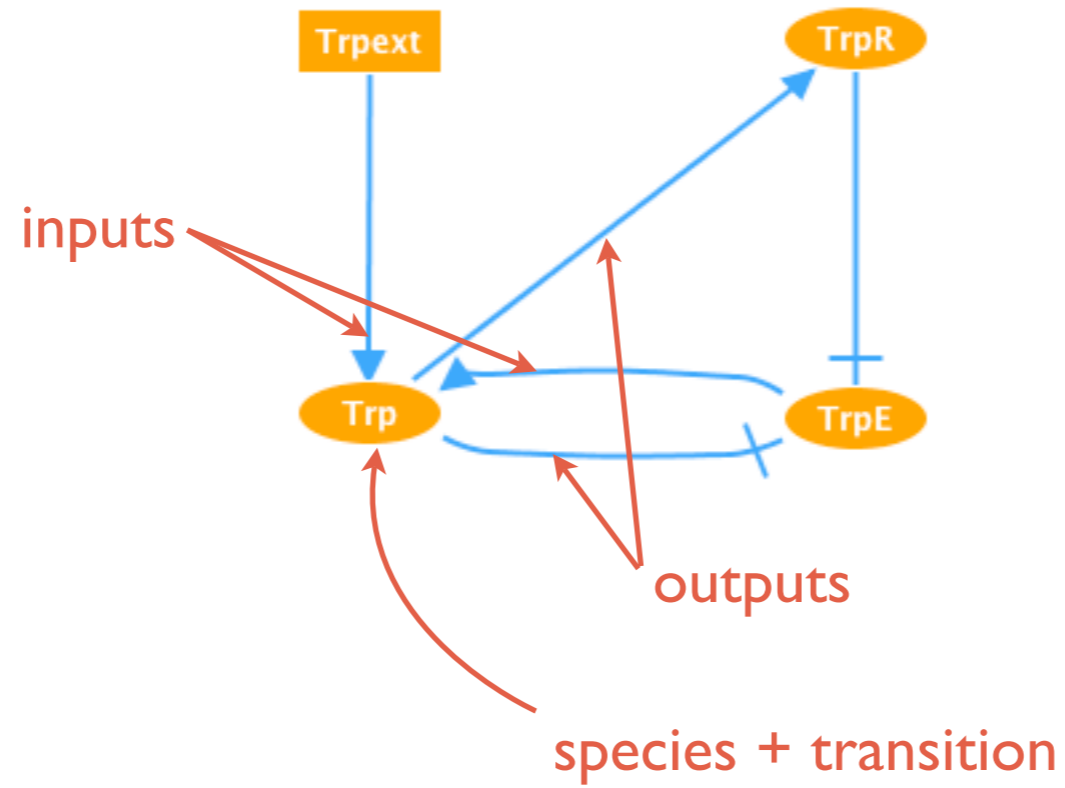
Logical model



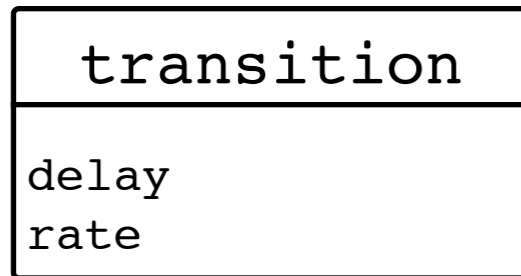
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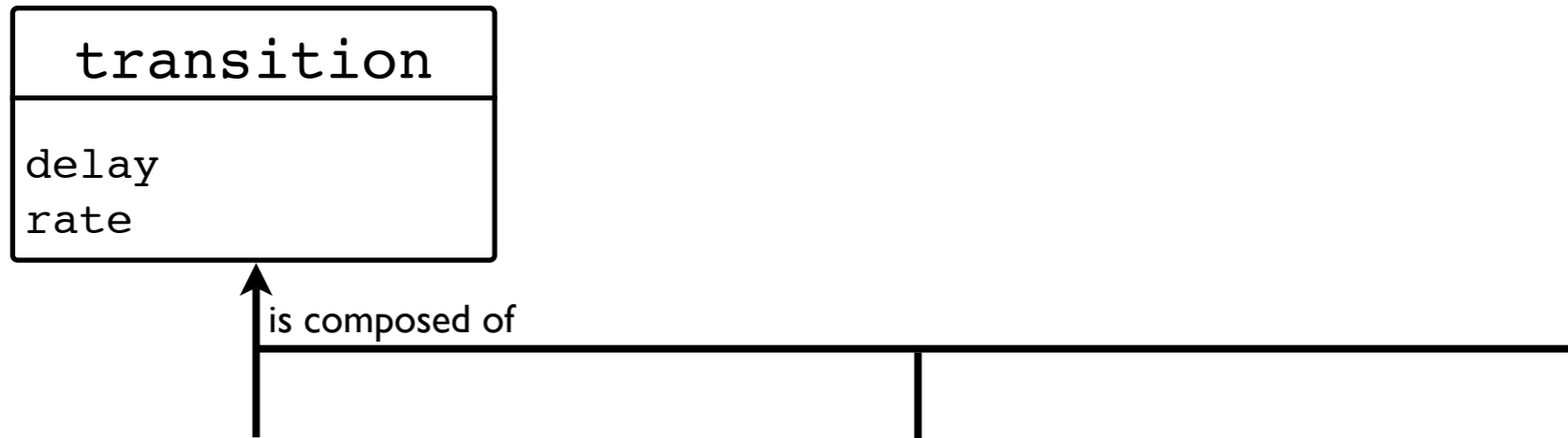
Logical model



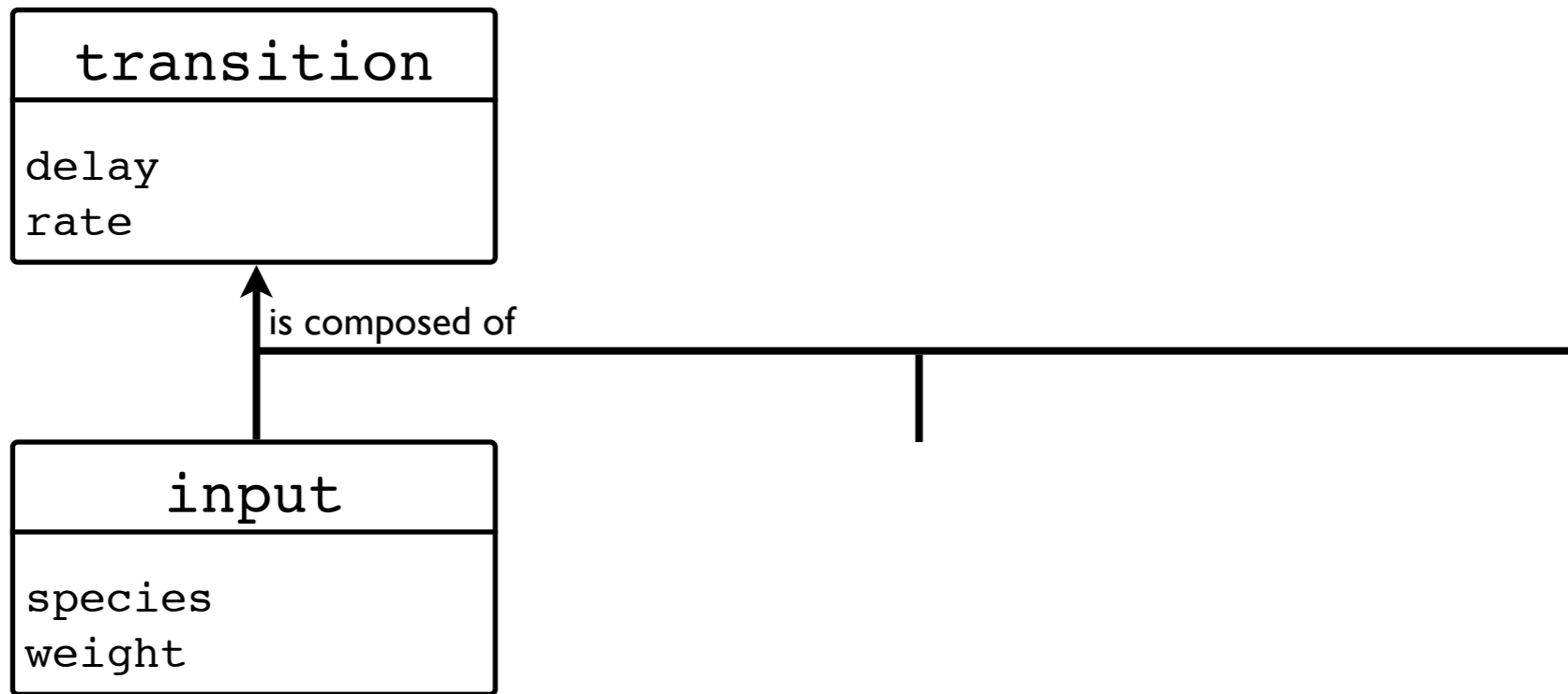
Proposal's diagrams



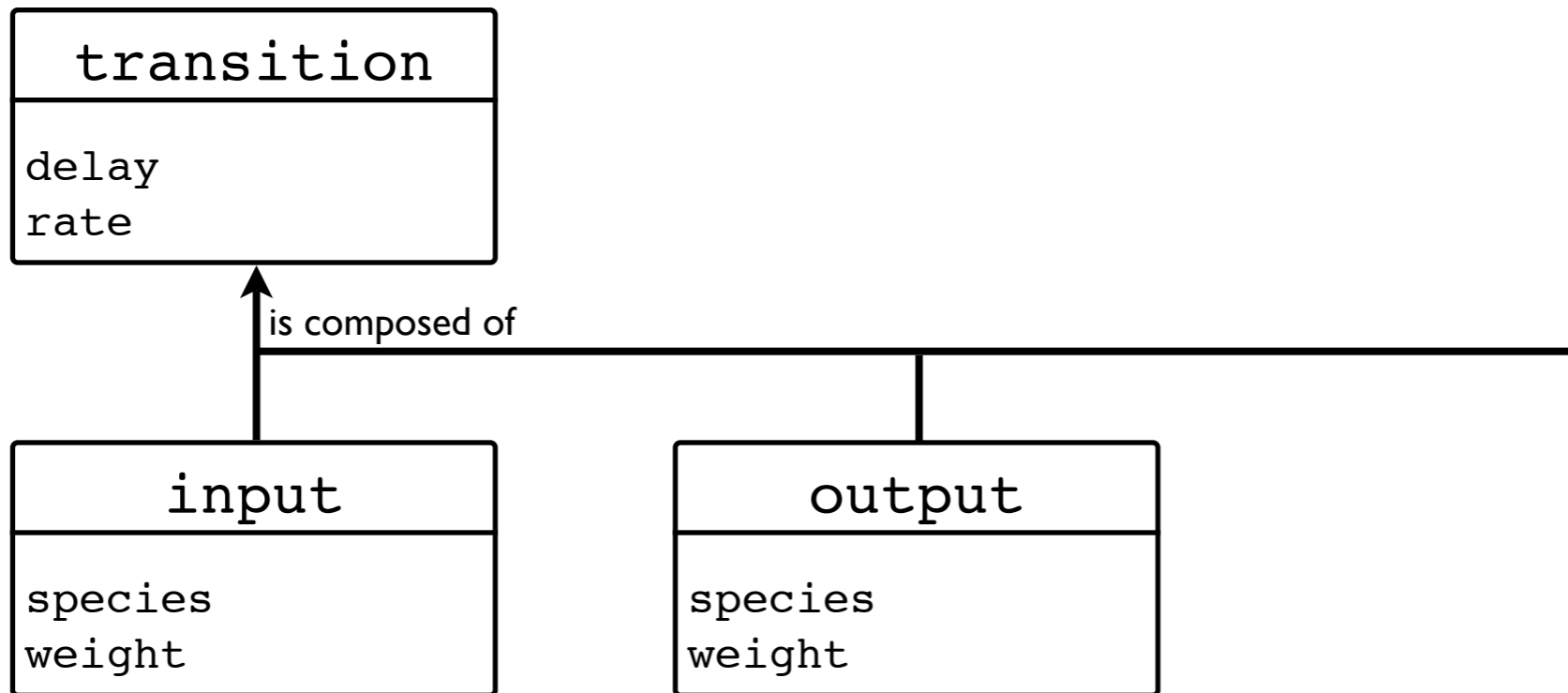
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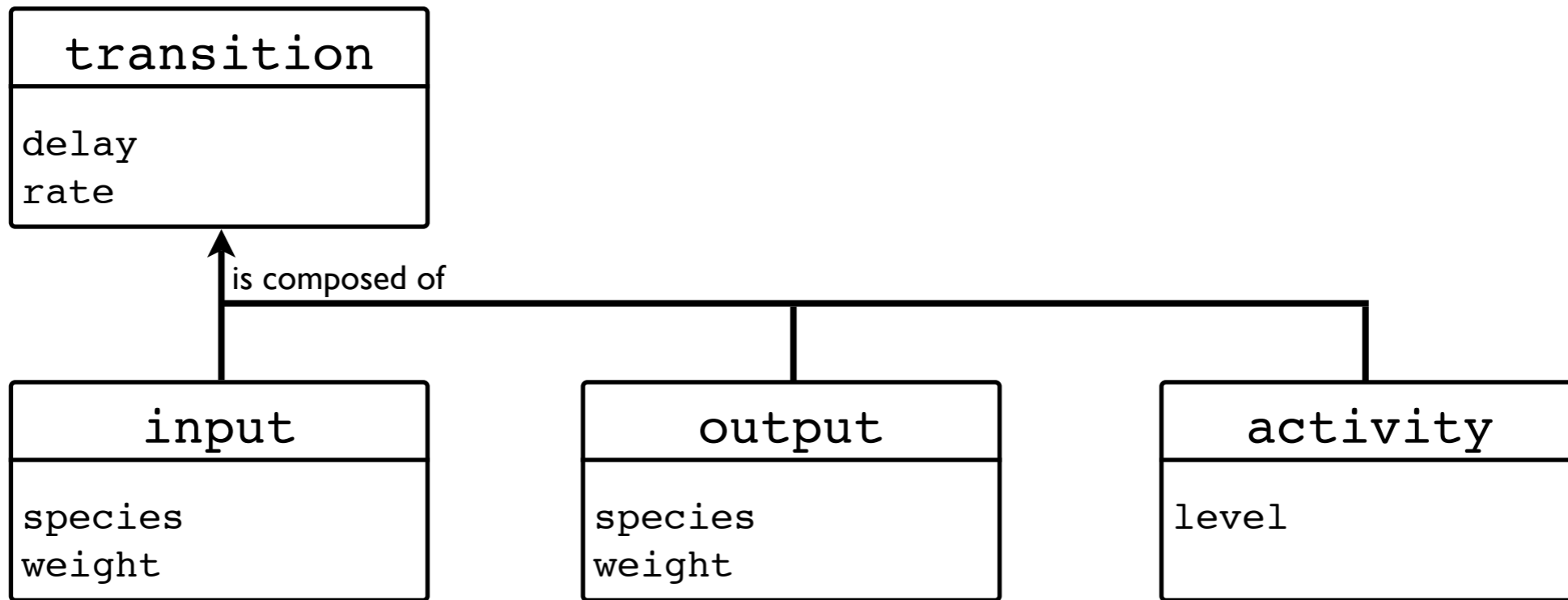
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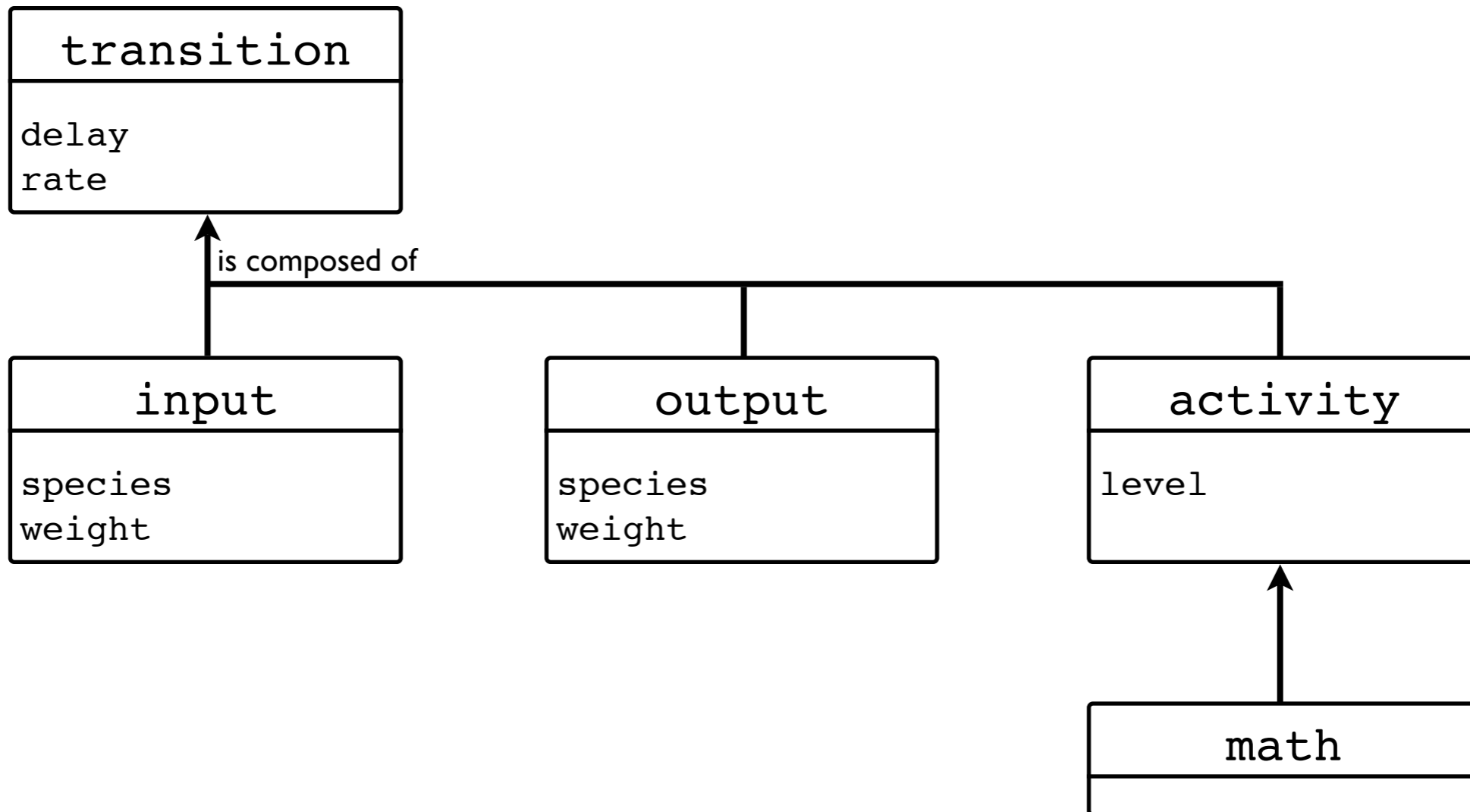
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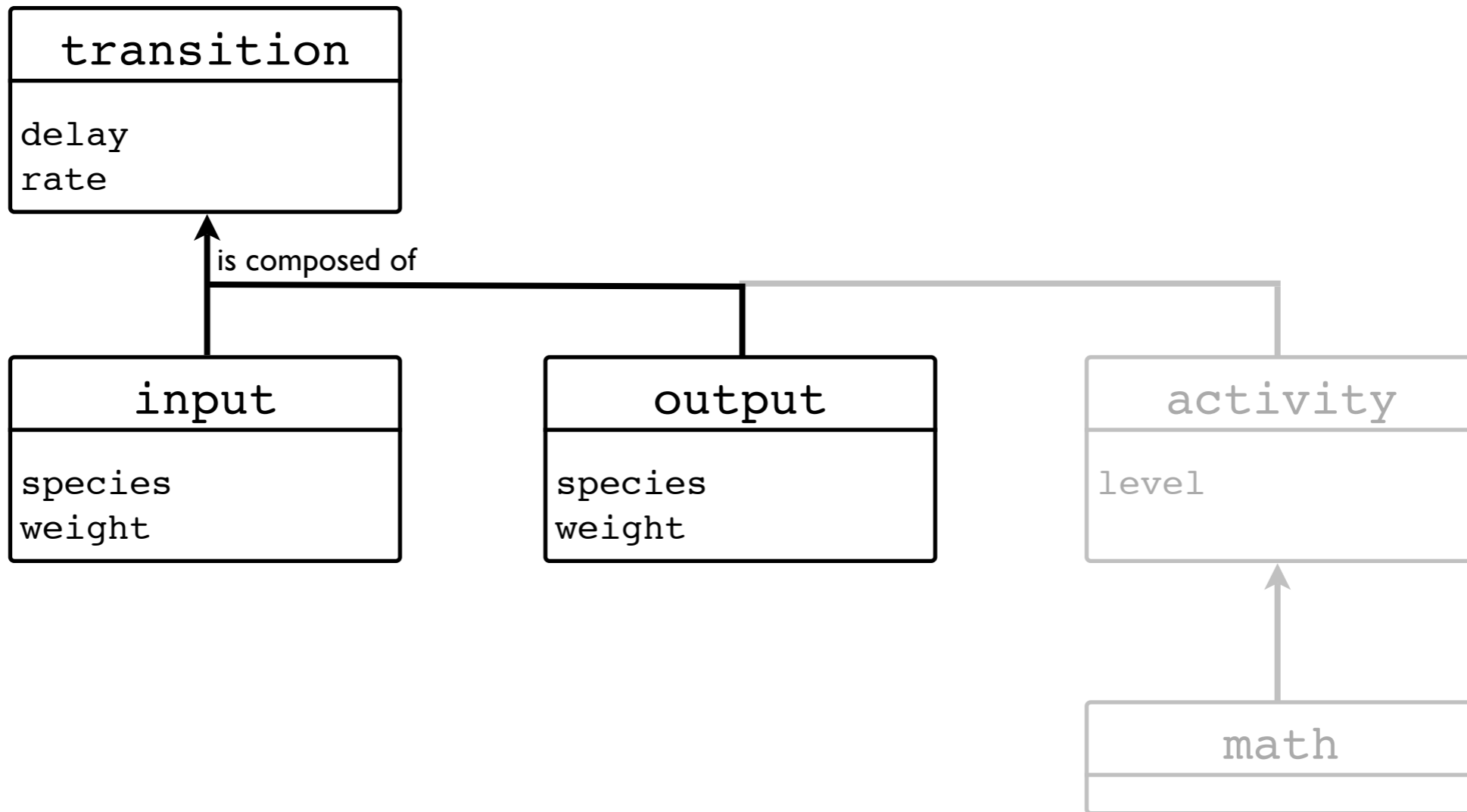
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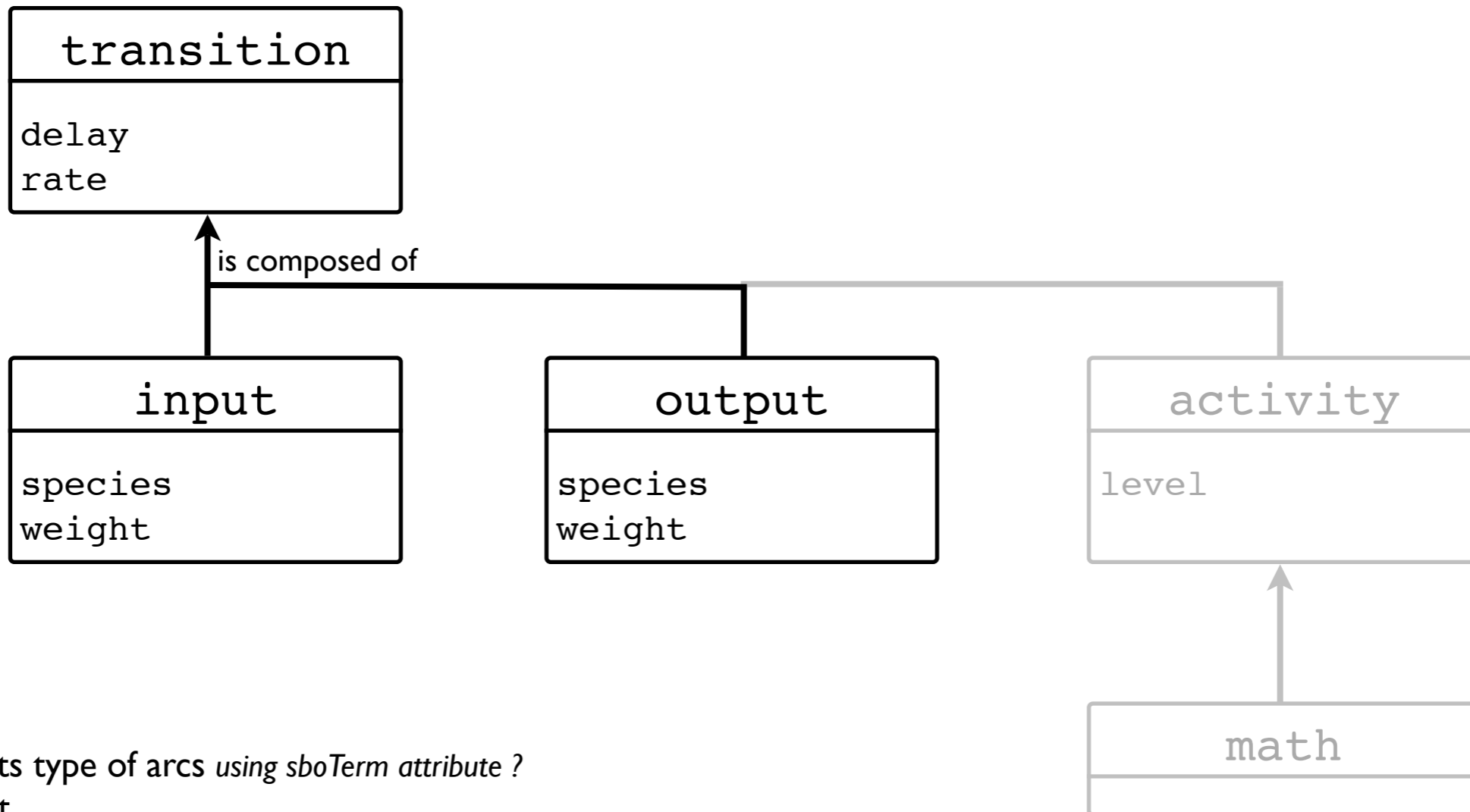
Proposal's diagrams



Petri Nets



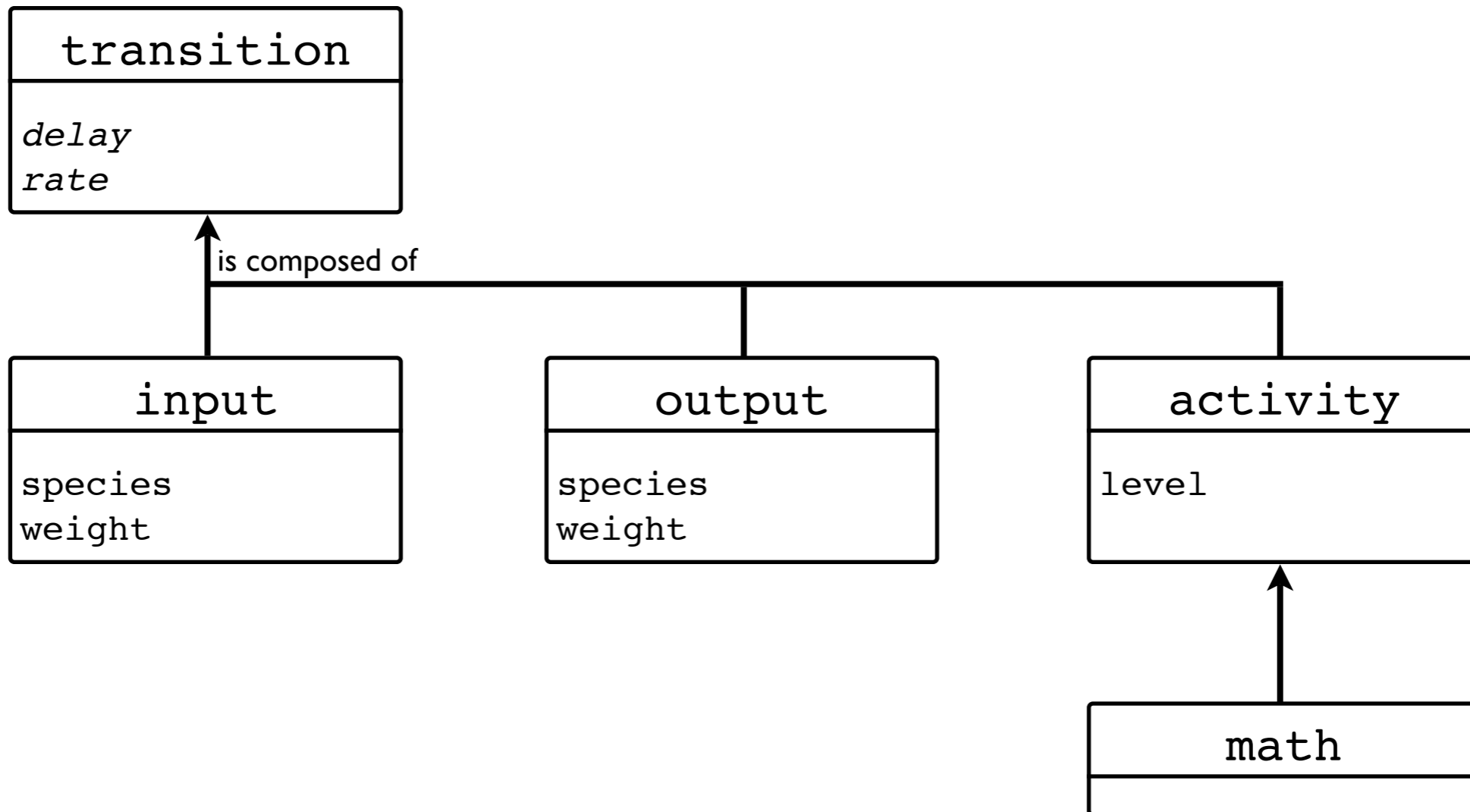
Petri Nets



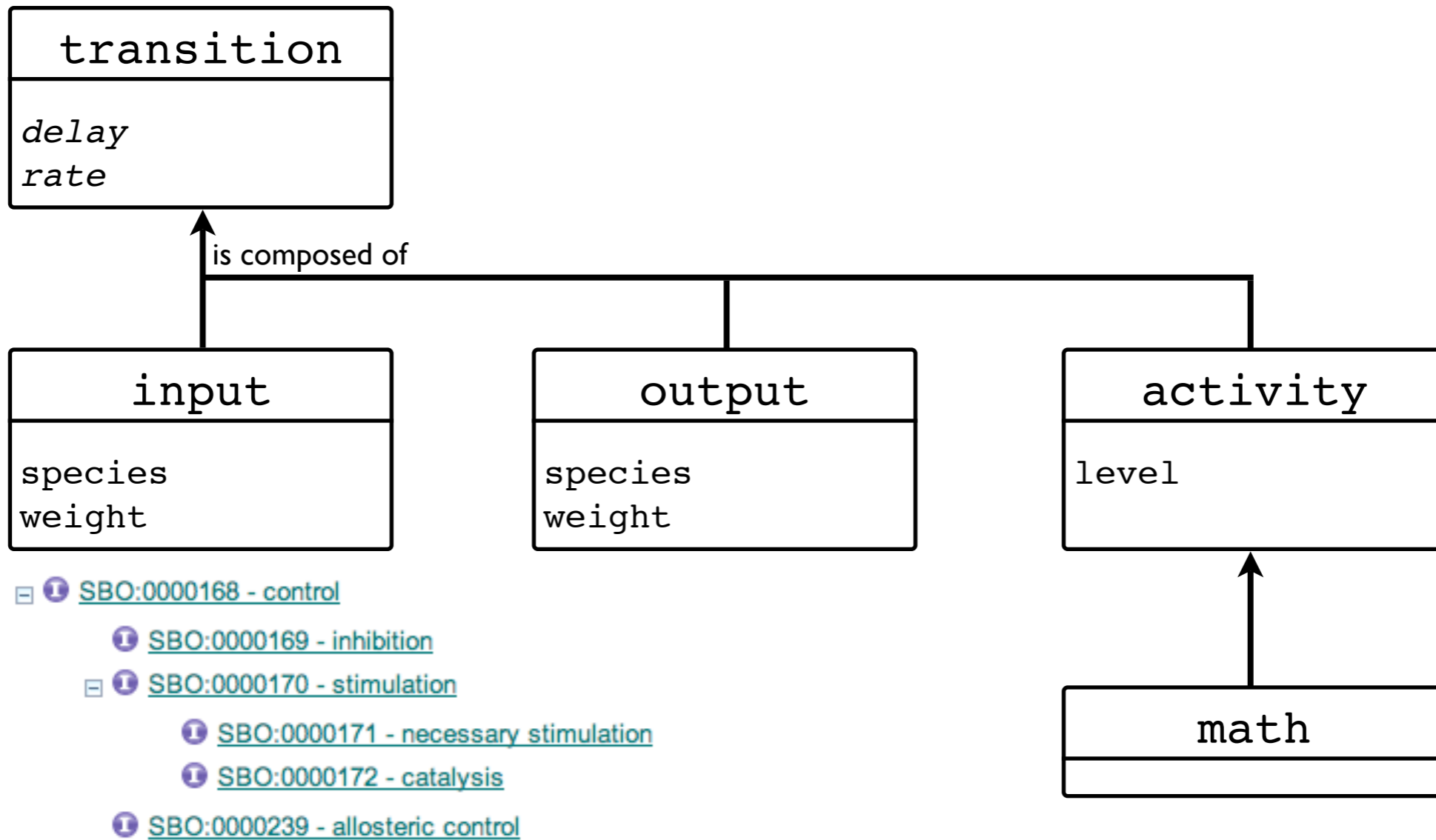
Different types of arcs using *sboTerm* attribute ?

- test
- inhibit

Logicals model



Logicals model



Things to discuss

- **New elements** Transition, Input and Output or re-use of Reaction, Reactants and Products ?
- **Which MATHML elements support in activities ?**
 - **apply, eq, and, or, not**
 - **neq, geq, leq, gt, lt ... ?**
 - **xor ?**
- **support for more than one output for logical models ?**