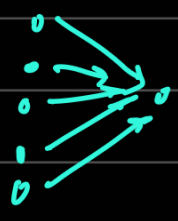
Buzzwords : Copresheaves, Structured cospans, Pullbacks, Operad

→ differences between syntax of composition and semantics of composition

The syntax of composition refers to the rules and structure defining how subsystems interact within a model, often exemplified by visual representations like undirected wiring diagrams. [1] On the other hand, the semantics of composition involve assigning meaning to models in a composition, interpreting them in terms of real-world phenomena, and analyzing their behavior and implications. [2] The syntax provides a high-level overview of model composition, while the semantics ensure accurate implementation based on defined interactions. [3]

→ Petri nets, ODEs, DDEs serve as semantics

Operads : Allows for  (multiple inputs, single output)

→ Different models can have different semantics but same syntax.

→ Structures may devolve into chaos without proper organizational software. Such software will help in generalizability.