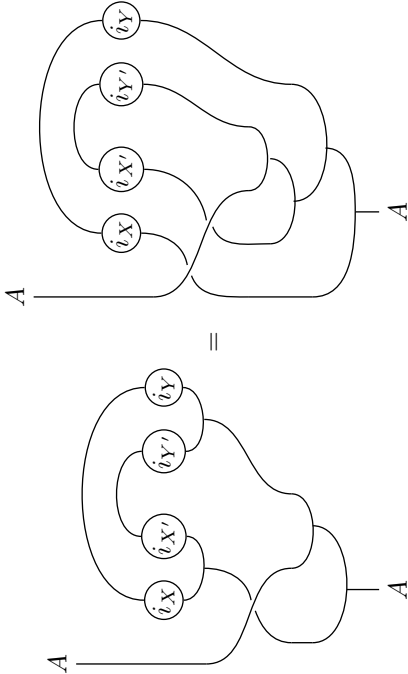
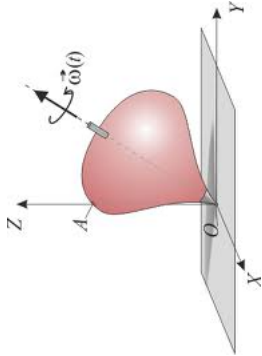


Groups and Quantum Groupoids



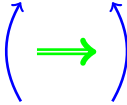
Symmetric Monoidal Categories

Lie Groupoids and Lie Algebroids



Internal Equivalences

Bicategories



Cyclic Homology
Morita Theory

Morita Invariance Theory

Small DG Categories, Homology, Cohomology

$$\cdots \longrightarrow HC_{n+1}(X) \longrightarrow HC_n(X) \longrightarrow HH_n(X) \longrightarrow HC_n(X) \longrightarrow \cdots$$

Equivariant vector bundles

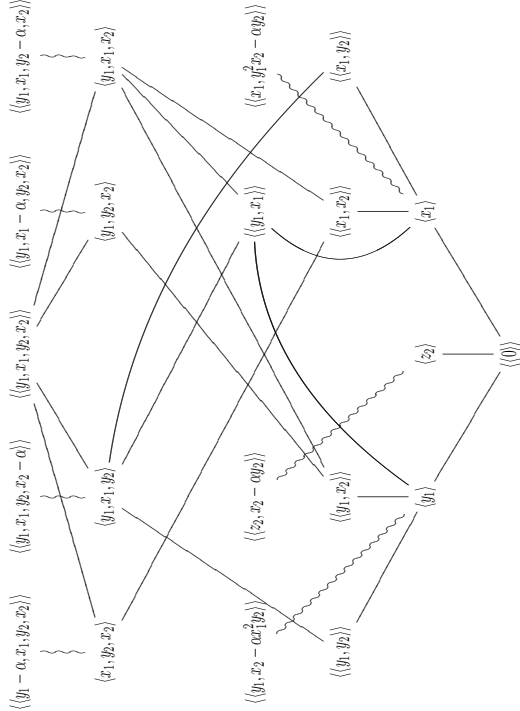
Tannaka-Krein Duality; Grothendieck-Galois Theories

Hopf Algebroids; Lie Algebroids

$$\begin{array}{ccc} S \otimes_B S \operatorname{Comod} & \xrightleftharpoons[S \otimes_B -]{\operatorname{Hom}_{S \otimes_B S}(S, -)} & {}_B \operatorname{Mod}, \\ \Sigma \otimes_A - \quad \Sigma^* \otimes_S - & \xrightleftharpoons[\Sigma^* \otimes_B -]{\operatorname{Hom}_{\Sigma^* \otimes_B \Sigma}(\Sigma^*, -)} & \end{array}$$

Generalized Faithfull Descent

Cliques and Links in Prime Spectrum



Homogenous Spaces

Prime Spectra

$$\cdots \parallel P_{-1,1,T}(\alpha,\beta) \cdots \parallel P_{0,0,T}(\alpha,\beta) \cdots \parallel P_{1,-1,T}(\alpha,\beta) \cdots \parallel \parallel$$