

# Algebras for a Functor

Gašper Golob in Nejc Zajc

Project presentation, 26.5.2022

# Motivation

$$\begin{array}{ccc} FA & \xrightarrow{\alpha} & A \\ \downarrow Ff & & \downarrow f \\ FB & \xrightarrow{\beta} & B \end{array}$$

# Initial Objects

# Lambek Lemma

$$\begin{array}{ccc} FA & \xrightarrow{\alpha} & A \\ \downarrow Fi & & \downarrow i \\ F(FA) & \xrightarrow{F\alpha} & FA \end{array}$$

# Polynomial Functor

# Initial object in F-Algebra Category

# Problems in Implementation



# Future work