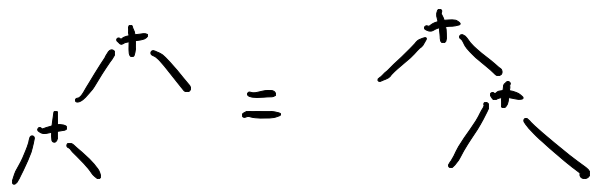In time Domie got even more bold and began using non-free algebras like his new pals Schulman & Licata

If the free algebra has relations, say
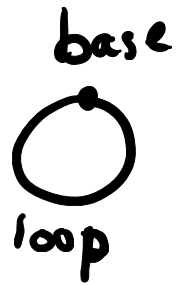
$$\overset{+}{\wedge}\!\!\!\overset{+}{\diagup} = \overset{+}{\diagup}\!\!\!\overset{+}{\wedge}$$

then we call it "higher induction" because it not only affects our path, it changes our =.

Soon the land of induction was filled
with life and invention

base

loop

$$S^1 := base$$
$$| \ loop : base = base$$

base

surface

$$S^2 := base$$
$$| \ surface : refl_{base} = refl_{base} \ in \ base = base \ type$$

And finally it made sense why homology
measures so little about a sphere.
There simply wasn't that much information
in a sphere to begin with.