Recall $\mathbb{A}^{g} = \mathbb{A}^{[\mathbb{A}^{e}, J, G]}$

where $\mathbb{A}^{e}$ is the Mandel-Maya\mathit{al}
and $J$ is pointed $G$-space.

A map $f: X \to Y$ in $\mathbb{A}^{e}$ is a map
of fiber if $f^{H}: X^{H} \to Y^{H}$ is one for
each $H \in G$. It has left $G$-cell

\[ J_{\mathcal{A}} = \mathcal{E} \times N(S^{-n+1} \to D) \quad n \geq 0, \quad H \in G \]

and

\[ J_{\mathcal{E}} = \mathcal{E} \times N(S^{-n+1} \to D) \quad n \geq 0, \quad H \in G \]

The projection model

**Def.** Let $\mathcal{M}$ be a CWM with
gen. Let $I$ and $J$ and let $I$ be a small cat. Then $[I, \mathcal{M}]$

\[ \text{has a model structure where} \]

\[ f: X \to Y \quad \text{is a map of fiber if} \]

\[ f^{H}: X^{H} \to Y^{H} \quad \text{is one for} \quad A \subseteq H \]
It has been seen

If \( I = \sum_{i \in I} i \), \( V \in \mathcal{Z} \)

If \( J = \sum_{j \in J} j \), \( V \in \mathcal{Z} \)

Reduction: STATE KAN TRANSFER THM.

Suppose \( J \) has a full cube cut \( \lambda \)

with \( \lambda : X \rightarrow J \)

\[ \lambda : [L, M] \xrightarrow{\lambda} [J, M]. \]

Using the Kan transfer then we get an induced model structure on \([J, M]\) in which \( f : X \rightarrow Y \) is a weak or fiber if \( f : X \rightarrow Y \) is one

for each \( L \in \mathcal{L} \).

Case of interest: Let \( \mathcal{L}_0 \subset \mathcal{L} \)

be the full subcategory of \( \mathcal{L} \) with \( \mathcal{L}_0 \neq \emptyset \) (positive ideal)
Localization is a form of Brownfield localization. Given a model cat $\mathcal{M}$ and a new model and a set (or class) of morphisms $S$, we form a new model cat $L_S \mathcal{M}$ where:

1. The underlying category is the same
2. It has the same cofibres
3. Every each map in $\mathcal{M}$ and each map in $\mathcal{S}$ is a map in $L_S \mathcal{M}$

This means $L_S \mathcal{M}$ has more trivial cofibres and hence fewer fibrant and more interesting fibrant replacements.

Example: In the classical case, the simply fibrant objects are the $S$-spectra.

We have its generalizing set of
Describe S in every case and obtain other case if time permits.

Enlargement

Then set w for $\ker G$ ( تقی)

1. $\exists V \ni I_G : V G = 0 \forall S \ni I_G \exists V \ni I_G$

We need a bigger set

2. $\exists H \ni S \ni I_G : H \leq G, V H = 0 \forall S$

In order for the change of $G$

Adjunction

$G_H(\sim) \ 
\Lambda H \ 
\Lambda H$

to be a Quillen adjunction $\vee H$

Reformulation

$\prod_{H \leq G} \Lambda H \ 
\Lambda H \ 
\Lambda H \ 
\Lambda H$

$\Lambda G \ 
\Lambda G \ 
\Lambda G \ 
\Lambda G$
NEW Thm (Enlargement)

Let $M$ and $M'$ be CGMCs with gen sets $(I, J)$ and $(I', J')$

Assume we have an adjunction (not Quillen)

\[
egin{array}{c}
M' \\
\xleftarrow{F} \\
\xrightarrow{U} \\
M
\end{array}
\]

with $U,F$ where $U$ preserves weg

and $UF,F$ is set of wegs in $M'$

Then consider the enlargement adj

\[
\begin{array}{c}
M \times M' \\
\xleftarrow{\text{MxM'}} \\
\xrightarrow{\text{MxM}} \\
\xleftarrow{M \times U} \\
M
\end{array}
\]

This has a model structure on $M$

with same wegs

generating sets $(I_{U,F}, J_{U,F}, F)$

(more cofibs) and fibrations

with suitable left RLP.
Example: \( M = A \otimes C \)
\( M' = A \otimes H \)

with change of \( A \) adjunction