Please make an appointment with me for Friday and also for the oral exam, if you want to have one. This week!
Afterwards, register with AGNES at the Prüfungsstelle.

Now: towards the Corolla polynomial,

Connected graphs for 1-loop vector in $\Phi_c$.

\[ \Delta + \frac{1}{2} \left( \phi \right) \]

\[ \gamma - \gamma + \text{ fermionic matter} \]

\[ \text{case (II, III)} \]

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You have Stavros. Taglu. It's a constituent of a co-ideal in the Hopf algebra.

"Contraction with long-tailed dips of freedom do not contribute to physics."

"Internal physical degrees of freedom drop out."

Both phenomena relate to path cohomology.

i) In path cohomology, you shrink internal $\nu S^1$. $S_0 S = 0$

ii) In cycle cohomology, you mark closed loops. $T \xrightarrow{1} T \rightarrow 0$

\[
\begin{align*}
q^a \kappa_a &= \kappa_a \\
\kappa_a &= 
\end{align*}
\]
\{ S, T \} = 0

b^2 = 0

\[ \Delta \]

3-regular path in \( \phi^3 \)

actually, sum of all connected graphs will

give loop number.

Wanted: a polynomial, which

maps these in depend of the

full gauge theory connected amplitudes.

Start with polynomial on

half-edges.

\textit{Jump to QG.}

\textit{Lee spin 2}

\textit{Vertices of our valence}
sense multiplication Hopf alg. $\cong$ as the core Hopf algebra.