Tuesday, March 9, 2010

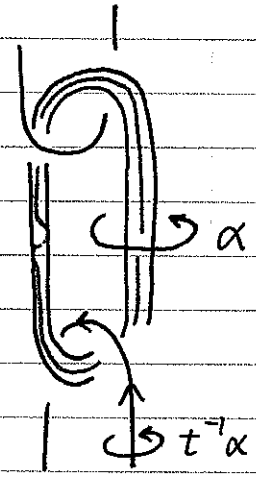
* Handout given with illustrated example

As a group, $\langle \alpha_i, \beta_i | \cdots \rangle$

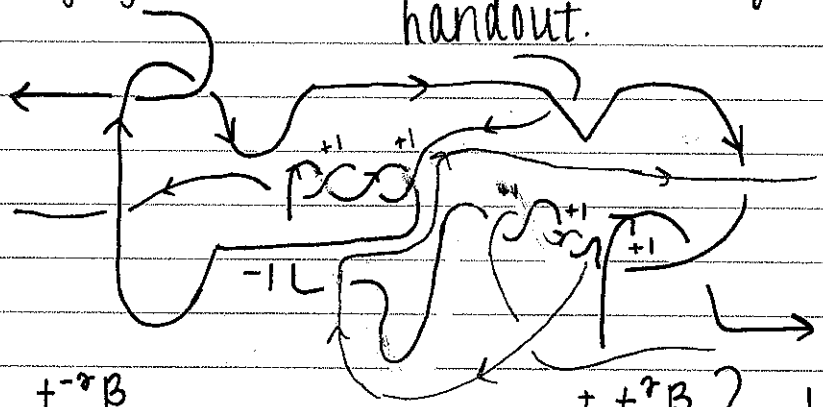
As a Λ-module, $\langle \alpha, \beta \mid (-t^{-1}+1-t)\alpha + (t^{-1}-1)\beta \ldots$

a.k.a. $H_1(\tilde{X}) = \langle \alpha, \beta \mid r_1, r_2 \rangle$

$\cong \Lambda / p(t)$



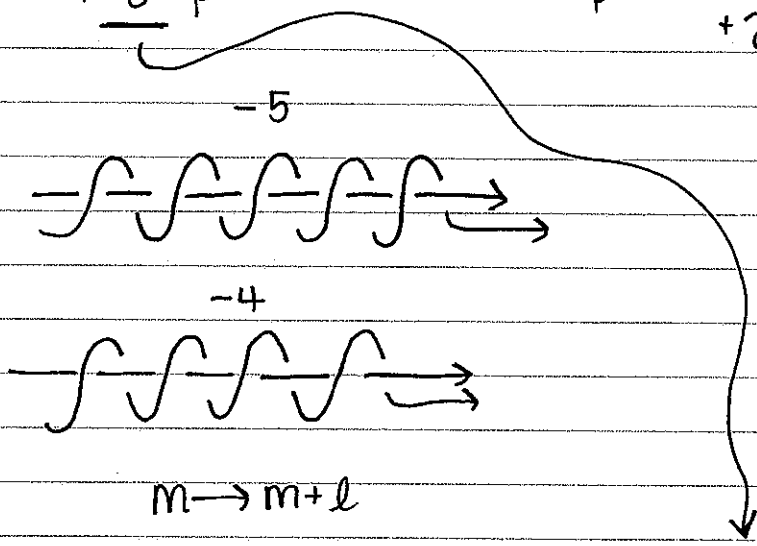
Recopying picture from last Thursday's handout.



$t^{-2}\beta + \gamma t^{-1}\beta + -5\beta + \gamma t\beta + t^2\beta$

$1+\gamma-5+\gamma+1 = 1$ ✓

$p(t) = t^{-2}\beta + \gamma t^{-1}\beta - 5\beta + \gamma t\beta + t^2\beta$



$m \longrightarrow m + \ell$

$m \longrightarrow \ell + (-4-1)m$ or $m \longrightarrow \ell - 5m$