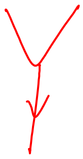
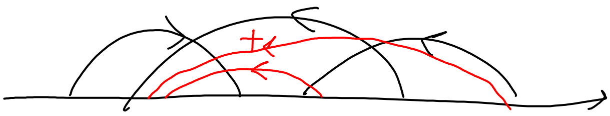
Alexander by Head Scattering

September-03-10
9:50 AM

Key:  head scatters indep. of tails.

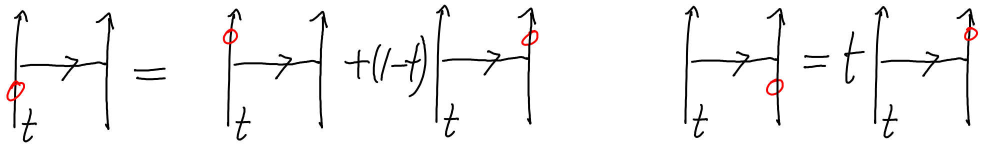
Rough work.



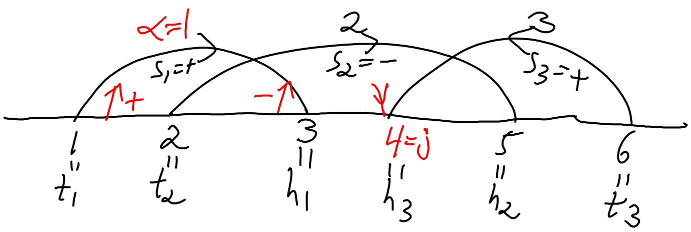
Λ_{ij} : An arrow from $t_j - h_j$ to i

$$\lambda - SL = \operatorname{tr} S_1' \Lambda$$

$$R\Lambda = S_2' \varphi$$



Now precisely-



$\alpha, \beta = 1 \dots n$ run over xings

$i, j, k = 1 \dots 2n$ run over ends

$$\Lambda_{\alpha j} = \text{RedArrow}[\underbrace{t_\alpha + 0.2}_{\text{from}}, \underbrace{j - 0.1}_{\text{to}}] - \text{RedArrow}[h_\alpha - 0.2, j - 0.1]$$

For each α & β, we have the relations $(s = s_\beta, t = t_\beta, h = h_\beta)$

$$\begin{cases} \Lambda_{\alpha h} = e^{s\phi_1} \Lambda_{\alpha, h+1} - \delta_{t_\alpha+1, h}\, \phi_1 + \delta_{h_\alpha+1, h}\, \phi_1 \\ \Lambda_{\alpha t} = \Lambda_{\alpha, t+1} + (1 - e^{s\phi_1}) \Lambda_{\alpha, h+1} + \text{similar} \end{cases}$$

$$\Lambda R = C$$

$\Lambda_{\alpha, 2n+1} = 0$ by tail scattering

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mod ϕ_1, $R = \begin{pmatrix} -1 & 1 & & \\ & -1 & 1 & \\ & & \ddots & \ddots \\ & & & -1 \; 1 \end{pmatrix}$, invertible?

Will work, but seems a bit different than the standard formulas for Alexander.

Perhaps, "tail scattering to infinity"?