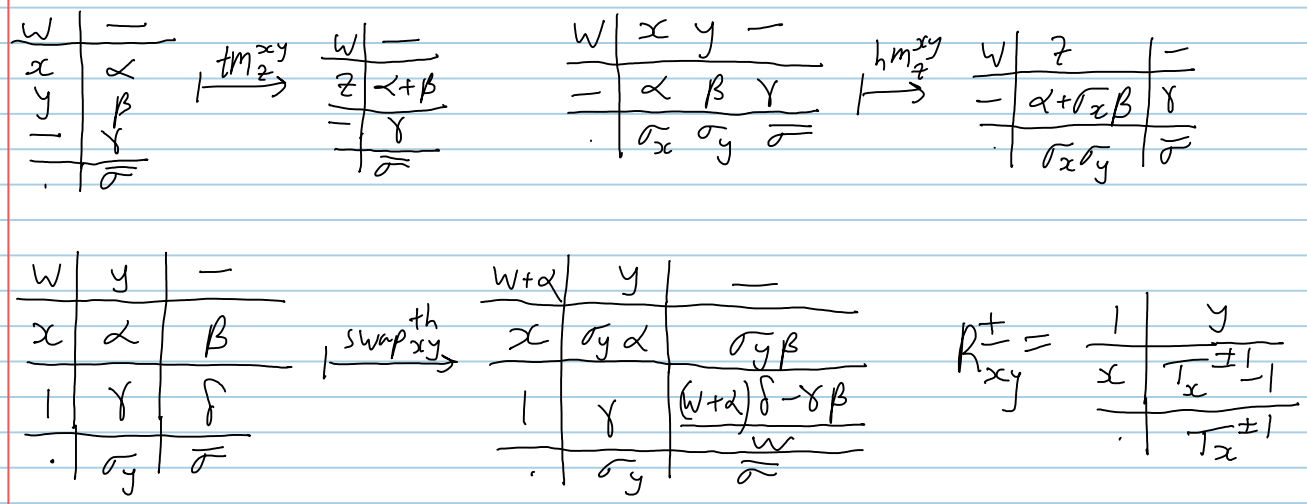
beta-better cheat sheet

[bb-calculus 2.0]

April-26-12
8:49 AM



$$R^{\pm}_{xy} = \begin{array}{c|cc} 1 & y & \\ \hline x & T_x^{\pm 1} & -1 \\ \hline \cdot & T_x^{\pm 1} & \end{array}$$

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{n = 3;
  b = B[ω, Sum[σ_j h[j], {j, n}], Sum[α10_{i+j} t[i] h[j], {i, n}, {j, n}]],
  b // dm[1, 2, 1]
 } // ColumnForm
```

From 2012-04/bbCalculus.nb

$$\begin{pmatrix} \omega & h[1] & h[2] & h[3] \\ t[1] & \alpha_{11} & \alpha_{12} & \alpha_{13} \\ t[2] & \alpha_{21} & \alpha_{22} & \alpha_{23} \\ t[3] & \alpha_{31} & \alpha_{32} & \alpha_{33} \\ 1+\Sigma/\omega & \sigma_1 & \sigma_2 & \sigma_3 \end{pmatrix}$$

$$\begin{pmatrix} \omega+\alpha_{12} & h[1] & h[3] \\ t[1] & \frac{(\omega+\alpha_{12})\,\alpha_{21}+\alpha_{22}\,(-\alpha_{11}+\omega\,\sigma_1)}{\omega} + (\alpha_{11}+\alpha_{12}\,\sigma_1)\,\sigma_2 & \frac{(\omega+\alpha_{12})\,\alpha_{23}+\alpha_{13}\,(-\alpha_{22}+\omega\,\sigma_2)}{\omega} \\ t[3] & \frac{(\omega+\alpha_{12})\,\alpha_{31}+\alpha_{32}\,(-\alpha_{11}+\omega\,\sigma_1)}{\omega} & \frac{-\alpha_{13}\,\alpha_{32}+(\omega+\alpha_{12})\,\alpha_{33}}{\omega} \\ 1+\Sigma/\omega & \sigma_1\,\sigma_2 & \sigma_3 \end{pmatrix}$$

$$\frac{\alpha(w+\alpha)\delta - \alpha\gamma\beta}{w} - \gamma\beta = \frac{\alpha(w+\alpha)\delta - (w+\alpha)\gamma\beta}{w}$$

$$= \frac{w+\alpha}{w}(\alpha\delta - \gamma\beta)$$