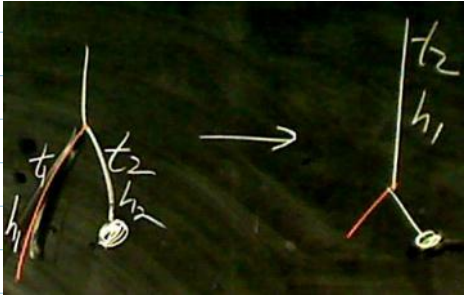


The Cap Equation

July-26-12
6:53 AM

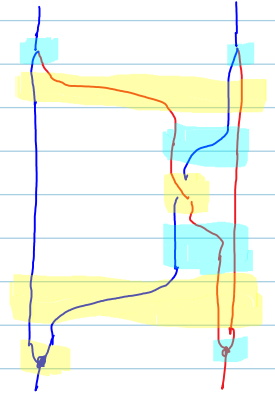
<http://katlas.math.toronto.edu/drorbn/bbs/show?shot=Dancso-120525-153201.jpg>



Some automatic cancellations:

Cancel

Survives



From 2011-11

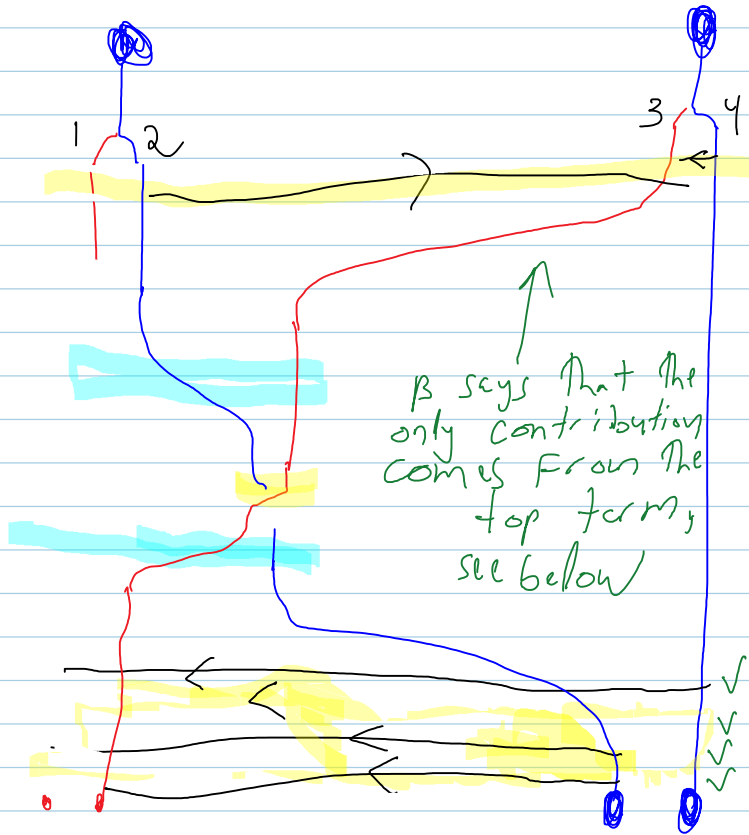
"BuckleEquation" → (

```
buckle = (Inverse[ $\mathbb{E}$ ] // dP[13, 2, 4]) ** ( $\mathbb{E}$  // dP[1, 3, 2]) **
```

```
 $\mathbb{O}$ [3, 2] ** Inverse[ $\mathbb{E}$ ] ** ( $\mathbb{E}$  // dP[12, 3, 4]);
```

```
LuckyV = buckle // t $\eta$ [1] // h $\eta$ [2] // dm[1, 2, 1] // t $\eta$ [3] //  
h $\eta$ [4] // dm[3, 4, 2];
```

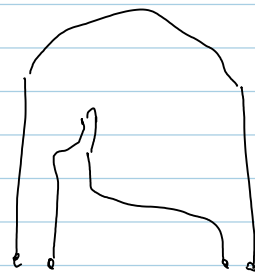
```
V = LuckyV
```



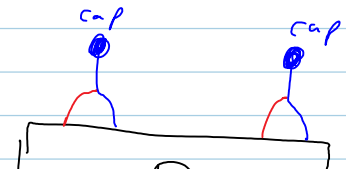
cancel before capping
cancel by capping??

can be checked in β -calculus.

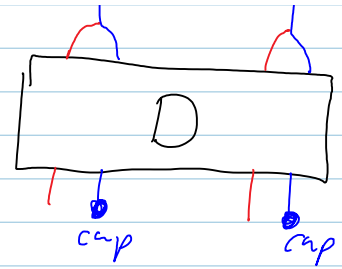
compare with:



The point, in short: On the right, the top horizontal



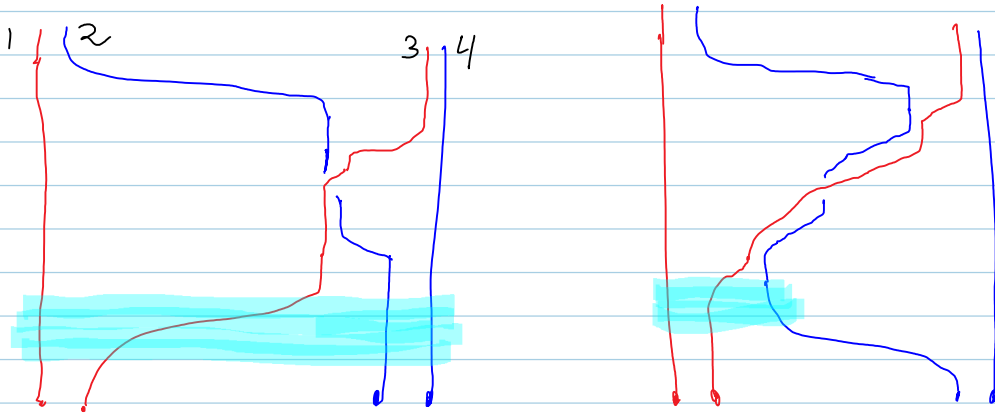
The right, the top horizontal chord in D either gets canceled by the caps or becomes central.



Not quite.

HW. Play with the β -calculator to see if some of the terms drop out.

Other buckles:



From [file:///C:/drorbn/AcademicPensieve/2012-07/beta7.0/Some Cap Experiments.nb](file:///C:/drorbn/AcademicPensieve/2012-07/beta7.0/Some%20Cap%20Experiments.nb) :

`CC ** (CC // dP[2]) ** Inverse[CC // dP[12]]`

$$\left(1 + \frac{1}{24} c_1 c_2 \hbar^2 + \left(-\frac{c_1^3 c_2}{1440} - \frac{c_1^2 c_2^2}{5760} - \frac{c_1 c_2^3}{1440} \right) \hbar^4 + \left(\frac{c_1^5 c_2}{60480} + \frac{c_1^4 c_2^2}{80640} + \frac{23 c_1^3 c_2^3}{967680} + \frac{c_1^2 c_2^4}{80640} + \frac{c_1 c_2^5}{60480} \right) \hbar^6 \right)$$

`⊗ // tγ[2] // dm[2, 3, 2] // dcap[2]`

$$\left(1 + \frac{1}{24} c_1 c_2 \hbar^2 + \left(-\frac{c_1^3 c_2}{1440} - \frac{c_1^2 c_2^2}{5760} - \frac{c_1 c_2^3}{1440} \right) \hbar^4 + \left(\frac{c_1^5 c_2}{60480} + \frac{c_1^4 c_2^2}{80640} + \frac{23 c_1^3 c_2^3}{967680} + \frac{c_1^2 c_2^4}{80640} + \frac{c_1 c_2^5}{60480} \right) \hbar^6 \right)$$