

## Startup

In[ ]:=

```
SetDirectory["C:\\drorbn\\AcademicPensieve\\Projects\\SL2Portfolio2"];
<< KnotTheory` ;
<< "../Profile/Profile.m";
<< "Engine-Speedy.m";
<< "Objects.m";
<< "KT.m";
BeginProfile[];
PopupWindow[Button["Show Profile Monitor"],
Dynamic[PrintProfile[], UpdateInterval -> 3, TrackedSymbols -> {}]]
```

- ParentDirectory: Argument File should be a positive machine-size integer, a nonempty string, or a File specification. +
- ParentDirectory: Argument File should be a positive machine-size integer, a nonempty string, or a File specification. +
- ToFileName: String or list of strings expected at position 1 in ToFileName[{File, WikiLink, mathematica}]. +
- ToFileName: String or list of strings expected at position 1 in ToFileName[{File, QuantumGroups}]. +

Loading KnotTheory` version of January 20, 2015, 10:42:19.1122.  
Read more at <http://katlas.org/wiki/KnotTheory>.

This is Profile.m of <http://www.drorbn.net/AcademicPensieve/Projects/Profile/>.

This version: June 2018. Original version: July 1994.

Out[ ]:=

Show Profile Monitor

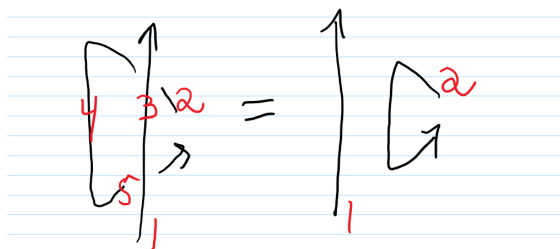
In[ ]:=

```
$k = 2; (*h=gamma=1;*)
```

## Utilities and Testing

In[ ]:=

```
HL[ε_] := Style[ε, Background -> Green];
```



$$\bar{R}_{15} C_4 R_{32} = \eta_1 C_a$$

// m<sub>13</sub> → 1 // m<sub>245</sub> → 2

Cyclic Reidemeister 2:

```
In[*]:= Timing@HL [ ( (  $\bar{R}_{1,5} C_4 R_{3,2}$  ) //  $dm_{1,3 \rightarrow 1}$  //  $dm_{2,4 \rightarrow 2}$  //  $dm_{2,5 \rightarrow 2}$  )  $\equiv de_1 C_2$  ]
Out[*]:= { 2.17188, True }
```

## aC and bC

```
In[*]:= Define [ aCi =  $\mathbb{E}_{\{i\} \rightarrow \{i\}}$  [  $\theta, \theta, e^{-\hbar \in a_i/2}$  ] $k,
   $\bar{a}C_i = \mathbb{E}_{\{i\} \rightarrow \{i\}}$  [  $\theta, \theta, e^{\hbar \in a_i/2}$  ] $k,
  bCi =  $\mathbb{E}_{\{i\} \rightarrow \{i\}}$  [  $\theta, \theta, B_i^{1/2}$  ] $k,
   $\bar{b}C_i = \mathbb{E}_{\{i\} \rightarrow \{i\}}$  [  $\theta, \theta, B_i^{-1/2}$  ] $k ]

In[*]:= Timing@HL [ ( (  $\bar{R}_{1,5} bC_4 R_{3,2}$  ) //  $am_{1,3 \rightarrow 1}$  //  $bm_{2,4 \rightarrow 2}$  //  $bm_{2,5 \rightarrow 2}$  )  $\equiv de_1 bC_2$  ]
Out[*]:= { 0.078125, True }
```

```
In[*]:= HL [ aC1 bC1  $\equiv C_1$  ]
Out[*]:= True
```