

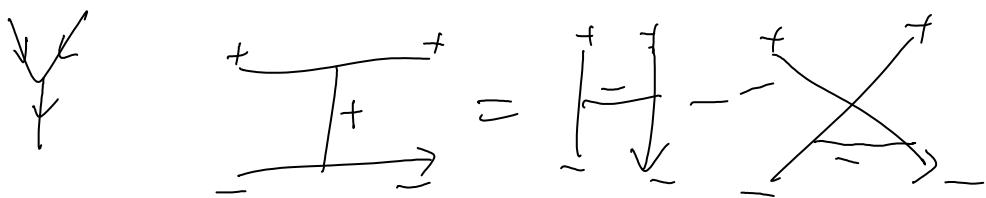
## Symmetric Spaces

September-29-10  
2:22 PM

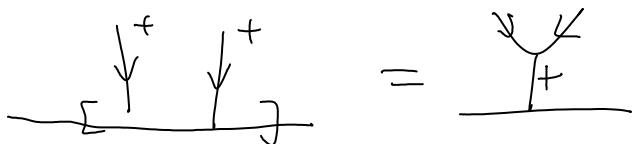
$[h, h] \subset h$ ,  $[h, m] \subset m$ ,  $[m, m] \subset h$  why should I care?

$$\begin{pmatrix} A & B \\ C & D \end{pmatrix} = \begin{pmatrix} A & 0 \\ 0 & D \end{pmatrix} \oplus \begin{pmatrix} 0 & B \\ C & 0 \end{pmatrix}$$

$h$                            $m$



$\Rightarrow$  "signed arrow diagrams"



wknots w/o R2?



$$\left| \begin{array}{c|c} + & + \\ \hline + & + \end{array} \right| + \left| \begin{array}{c|c} + & - \\ \hline + & - \end{array} \right| + \left| \begin{array}{c|c} + & + \\ \hline - & + \end{array} \right| =$$

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$$\text{Diagram showing the equivalence of three signed arrow diagrams enclosed in circles. The first circle contains two crossing arrows with signs. The second circle contains two crossing arrows with signs. The third circle contains a single arrow pointing upwards from a '+' sign to a horizontal line. The equals sign between the first and second circles is positioned below the circles' centers, and the equals sign between the second and third circles is positioned above the circles' centers.}$$