

Last time:  $NH_a$  - Nil Hecke on  $n$  strands.

$$\begin{array}{c} \diagdown \\ \diagup \end{array} - \begin{array}{c} \diagup \\ \diagdown \end{array} = \begin{array}{c} \diagup \\ \diagdown \end{array} - \begin{array}{c} \diagdown \\ \diagup \end{array} = 0 \quad \left( \quad \begin{array}{c} \diagdown \\ \diagup \end{array} = \begin{array}{c} \diagup \\ \diagdown \end{array} \right) \quad \text{ } = 0$$

$NH_a$  acts on  $\mathbb{Z}[x_1, \dots, x_n] =: P_a$  by

$$| \quad | \quad | = x_i \text{ acts by multiplication}$$

$\partial_i = | \dots \times | |$  acts on  $f \in P_a$  by

$$\partial_i f = \frac{f - s_i(f)}{x_i - x_{i+1}}$$

where  $s_i f = f / \begin{array}{l} x_i \rightarrow x_{i+1} \\ x_{i+1} \rightarrow x_i \end{array}$