

$$\bigoplus_a \mathcal{H} \left(\left(\begin{array}{c} \text{annulus } M \text{ with hole } a \end{array} \quad \begin{array}{c} \text{disk } N \text{ with boundary } \hat{a} \end{array} \right) \right)$$

$$\xrightarrow{\parallel} \mathcal{H} \left(\begin{array}{c} \text{annulus } M \text{ with dashed boundary } N \end{array} \right)$$