

$$\begin{array}{c} \bigoplus \\ a \end{array} \mathcal{H} \left(\begin{array}{c} \text{annulus} \\ a \\ M \end{array} \right) \amalg \left(\begin{array}{c} \text{disk} \\ \hat{a} \\ N \end{array} \right) \xrightarrow{\cong} \mathcal{H} \left(\begin{array}{c} \text{annulus} \\ N \\ M \end{array} \right)$$

The diagram illustrates an isomorphism between two mathematical structures. On the left, a direct sum of a vector space \bigoplus (labeled a) and a Hilbert space \mathcal{H} is shown. The \mathcal{H} component is represented by an annulus with an inner boundary labeled a and an outer boundary labeled M . This is combined with a disk component labeled \hat{a} and N . An arrow labeled \cong points to the right, where the structure is simplified to a single Hilbert space \mathcal{H} represented by an annulus with an inner boundary labeled N and an outer boundary labeled M .