Definition (Symmetric monoidal category). A *symmetric monoidal category* is a braided monoidal category $\langle \mathbf{C}, \boldsymbol{\otimes}, \mathbf{1}, \mathbf{br} \rangle$ for which the braiding satisifies the symmetry condition

 $\mathrm{br}_{X,Y}\ ^{\circ}_{,}\ \mathrm{br}_{Y,X}=\mathrm{Id}_{X\bigotimes Y}$

for all $X, Y \in Ob_{\mathbf{C}}$.