

Start with PVB:

$$PVB_n \stackrel{?}{=} \langle \sigma_{I,J} : \sigma_{I,J_1} \cdot \sigma_{I,J_2} = \sigma_{I,J_1 J_2} \rangle \quad \& \text{locality}$$

$$\sigma_{12} \sigma_{13} \sigma_{23} = \sigma_{23} \sigma_{13} \sigma_{12}$$

$$\overset{''}{\sigma_{12}} \overset{''}{\sigma_{12,3}} = \overset{''}{\sigma_{2,3}} \overset{''}{\sigma_{12}}$$