

Check that two measurements of the same observable, with infinitesimal time separation, give the same outcome:

$$\begin{array}{l}
 \psi = \sum_{i=1}^{\infty} c_i \psi_i \xrightarrow[\text{outcome } \lambda_i]{\text{measurement 1}} \psi' = \psi_i \text{ after 1st.} \\
 \xrightarrow[\text{outcome } \lambda_i]{\text{measurement 2}} \psi'' = \psi_i \\
 \hline
 \psi' = \sum_{j=1}^{\infty} c'_j \psi_j \quad \text{with} \quad c'_i = 1 \\
 c'_j = 0 \quad (j \neq i)
 \end{array}$$

So proj^{or} postulate for moment 2 says
 outcome λ_i has prob $|c'_i|^2 = 1$
 λ_j ($j \neq i$) has prob $|c'_j|^2 = 0$.