

$$\alpha\{A+A'\} = \alpha A + \alpha A', \alpha\{cA\} = c\alpha A$$

$$x \xi x$$

$$\xi^m |P\rangle = 0$$

$$(4) \quad \begin{aligned} & \xi |P\rangle \\ & \langle P | \xi \\ & \langle P | \xi^2 |P\rangle = \\ & \langle P | \xi \xi |P\rangle = \\ & \xi |P\rangle \\ & \frac{\xi^2}{2} = \\ & \frac{\xi^2}{2} > \\ & \xi^{m-2} |P\rangle = \\ & |Q\rangle \end{aligned}$$

All the states of the dynamical system are in one-to-one correspondence with all the possible directions for a ket