

$$\begin{array}{ccc}
 q_n & \xrightarrow{\Psi_h} & q_{n+1} \\
 \mathbb{P}^{-1} \uparrow & & \downarrow \mathbb{P} \\
 (q_n, \lambda_n) & \xrightarrow{\Phi_h} & (q_{n+1}, \lambda_{n+1})
 \end{array}$$