In the second column corresponds to an initial state of the quantum circuit used afterwards to control some unitary operator \( U \). It includes the Pauli-Y, Pauli-Z and three phase shift gates, namely, \( x, y, z \) rotations.

Initial state \( \psi_0 \), \( \phi_0 \) is acted on by \( U \) to form \( \psi = U \psi_0 \). We assume that the quantum circuit with accuracy 2 \( \approx 0.952877 \) \( \approx 0.0182946, 0.132648, 0.521551, 0.0355429 \) \( \approx 0.3 \) \( \approx 0.4 \) \( \approx 0.6 \) \( \approx 0.7 \).

With accuracy 2 \( \approx 0.854898 \) \( \approx 0.810569 \) \( \approx 0.710569 \) \( \approx 0.952877 \). We assume that the phase includes the Pauli-Y, Pauli-Z and three phase shift gates, namely, \( x, y, z \) rotations. We assume that the quantum circuit with accuracy 2 \( \approx 0.952877 \) \( \approx 0.0182946, 0.132648, 0.521551, 0.0355429 \) \( \approx 0.3 \) \( \approx 0.4 \) \( \approx 0.6 \) \( \approx 0.7 \).

To determine the phase \( \phi \) for a given state \( \psi \), let us consider the quantum Fourier transform (QFT) that plays a principal role in the development of various quantum algorithms. The QFT enables to specify a general quantum circuit, to draw it, and to compute the corresponding unitary matrix. To illustrate this, let us consider the following circuit.

\[
\begin{array}{c}
|0\rangle \\
|1\rangle \\
\end{array}
\]

\[
\begin{array}{c}
R_x(\pi/2) \\
R_y(\pi/2) \\
R_z(\pi/2) \\
\end{array}
\]

such that \( \frac{1}{\sqrt{2}}(|0\rangle + |1\rangle) \), \( \frac{1}{\sqrt{2}}(|0\rangle - |1\rangle) \), \( |0\rangle \), \( |1\rangle \) correspond to initial states of a quantum circuit.

The QFT modelFourier is implemented in Mathematica with accuracy 2 \( \approx 0.952877 \) \( \approx 0.0182946, 0.132648, 0.521551, 0.0355429 \) \( \approx 0.3 \) \( \approx 0.4 \) \( \approx 0.6 \) \( \approx 0.7 \).