## 5. COEFFICIENTS OF THREE MODES FOR NUMERICAL CASE

In this paper, the coefficients are set differently for different modes. The detailed setting is described in (S14)-(S16).

Mode  $\mathcal{M}_1$ :

$$\begin{cases}
a_1 = 1.5, b_1 = 3; \\
a_2 = 1, b_2 = 2.5; \\
a_3 = 0.3, b_3 = -0.6, c_3 = 2; \\
a_4 = -0.3, b_4 = 0.6, c_4 = 4; \\
a_5 = 2.2; \\
a_6 = 0.4, b_6 = -0.1, c_6 = 0.2, d_6 = 0.8; \\
a_7 = 0.6, b_7 = 0.1, c_7 = 0.6, d_7 = 0.4;
\end{cases}$$
(S14)

Mode  $\mathcal{M}_2$ :

$$\begin{cases}
a_1 = 1.5, b_1 = 3.5; \\
a_2 = 2, b_2 = 2; \\
a_3 = 0.4, b_3 = -0.8, c_3 = 3; \\
a_4 = -0.2, b_4 = 0.4, c_4 = 3; \\
a_5 = 1.9; \\
a_6 = 0.8, b_6 = -0.1, c_6 = 0.4, d_6 = 0.8; \\
a_7 = 0.8, b_7 = 0.3, c_7 = 0.4, d_7 = 0.4;
\end{cases}$$
(S15)

Mode  $\mathcal{M}_3$ :

$$\begin{cases}
a_1 = 1.2, b_1 = 3; \\
a_2 = 2, b_2 = 2.5; \\
a_3 = 0.4, b_3 = -0.8, c_3 = 2; \\
a_4 = -0.3, b_4 = 0.6, c_4 = 4; \\
a_5 = 1.6; \\
a_6 = 0.4, b_6 = -0.1, c_6 = 0.3, d_6 = 0.6; \\
a_7 = 0.5, b_7 = 0.2, c_7 = 0.5, d_7 = 0.8;
\end{cases}$$
(S16)

where t follows uniform distribution with  $t \sim U\left([0,1]\right)$ .