

Testing $\omega \in [0, 2]$:

ω	convergence	stability	time
0	no	yes	26 seconds
0.5	no	yes	2+ minutes
1	yes	yes	20 seconds
1.5	yes	yes	14 seconds
2	no	no	19 seconds

Testing constant δt :

δt	convergence	stability
0.05	no	no
0.01	no	no
0.008	no	no
0.0075	yes	yes
< 0.0075	yes	yes

Theoretical δt calculated: < 0.01, but without $|u_{max}|$ and $|v_{max}|$ conditions included.

Testing $U[i_{max}/2][7*j_{max}/8]$ at $t = 100$ for different i_{max} , j_{max} , with $\delta t = 0.05$:

$i_{max} = j_{max}$	$U[i_{max}/2][7*j_{max}/8] \rightarrow \infty$
16	no
32	yes
64	yes
128	yes
256	yes

Testing $U[i_{max}/2][7*j_{max}/8]$ at $t = 100$ with adaptive δt :

$i_{max} = j_{max}$	$U[i_{max}/2][7*j_{max}/8] \rightarrow \infty$
16	no
32	no
64	no
128	no
256	no