Solution at different times with $N = 6820$

Ψ at $t = 0.000$ C at $t = 0.000$
Ψ at $t = 0.015$ C at $t = 0.015$
Ψ at $t = 0.050$ C at $t = 0.050$
Ψ at $t = 0.100$ C at $t = 0.100$
Ψ at $t = 1.239$ C at $t = 1.239$