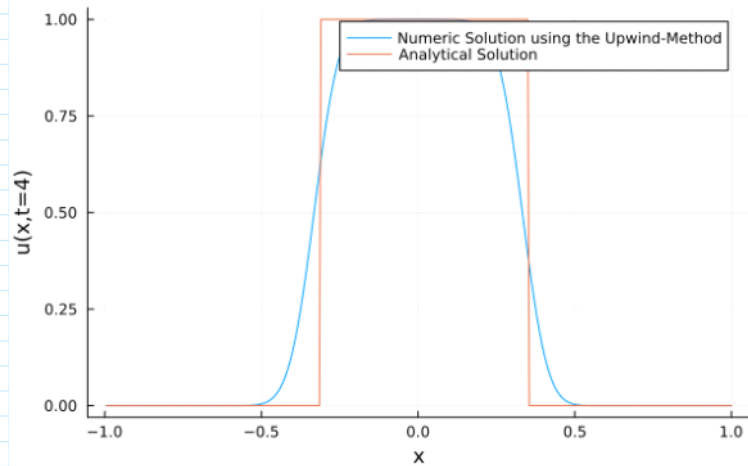


Blatt 8

Samstag, 5. Juli 2025 23:34

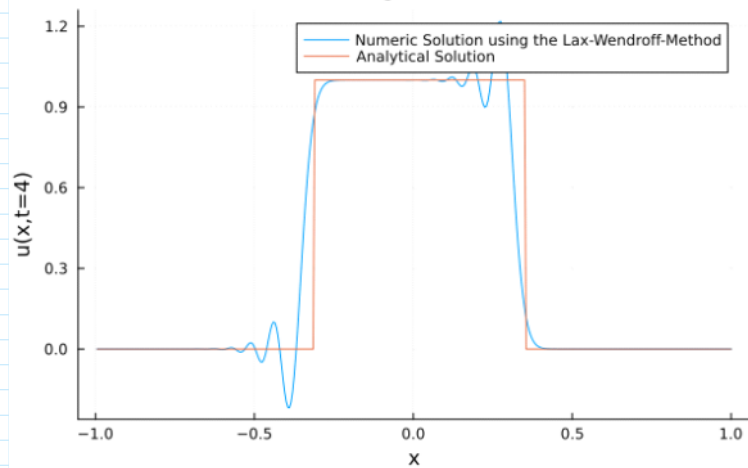
Comparison of the different methods

Numeric Solution using the Upwind-Method



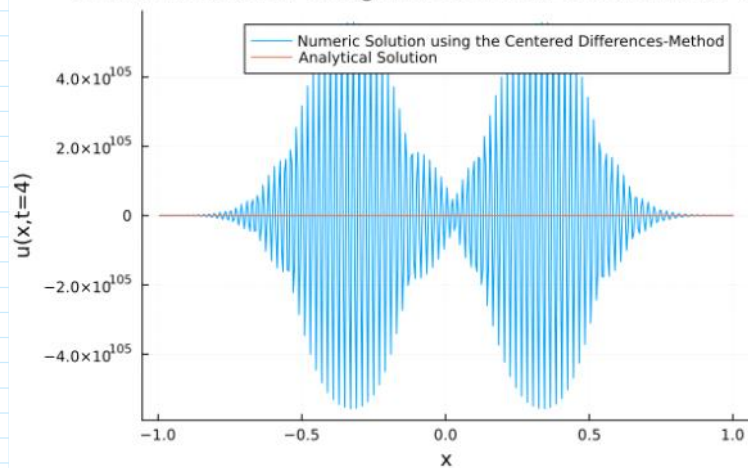
No sharp corners
-> dampening-effect

Numeric Solution using the Lax-Wendroff-Method



Better approximation of sharp corners -> less dampening than Upwind
But there are oscillations before the steep "wall"

Numeric Solution using the Centered Differences-Method



The Centered Difference method diverges quickly;
Values on the order 10^{105} happen after $t=4$