

Transient Couette Flow Problem: Analytical and Numerical Solutions

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Abstract. Couette flow is a viscous flow between two parallel plates separated by some vertical distance. The lower plate moves with constant velocity and the upper plate is kept stationary. In the present work, the governing equations are solved analytically by the method of separation of variables (Fourier method) and numerically solved by employing the FTCS (Forward-Time Central-Space) method. Both solutions are presented and compared graphically.

References

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