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Adaptive Control of the Forced Generalized Korteweg-de Vries-Burgers Equation NEJIB SMAOUI, ALAA EL-KADRI, MOHAMED ZRIBI, Kuwait University — The adaptive control problem of the forced generalized Korteweg-de Vries-Burgers (GKdVB) equation when the spatial domain is $[0, 1]$ is considered. Three different adaptive control laws are designed for the forced GKdVB equation. The L^2-global exponential stability of the solutions of these equations is shown for each of the proposed control laws by using the Lyapunov theory. Numerical simulations based on the Finite Element method (FEM) are presented to validate the analytical developments.

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