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Propagation of a pulse trough a Lorentz dispersive thin film using the Finite Difference Time Domain JESUS MANZANARES-MARTINEZ, ADRIAN NAVARRO-BADILLA, RAUL ARCHULETA-GARCIA, Universidad de Sonora — We consider the evolution of the main signal in a Lorentz dispersive thin film. The signal is a Gaussian-sine modulated pulse that is excited outside the thin film. We illustrate the change of the group velocity as the pulse changes its central frequency and we discuss the conditions to have a superluminal behavior. The results obtained are illustrated with animated graphics that obtained with our implementation of the Finite Difference Time Domain.

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