Numerical study of the single-mode Rayleigh-Taylor instability with non-unity Schmidt number[1] MAXWELL HUTCHINSON, ROBERT ROSNER, Univ of Chicago — Recent experiments[1] and simulations[2,3] of the single mode Rayleigh-Taylor instability question the assumed existence of a bubble terminal velocity regime[4], particularly for low Atwood numbers. We present numerical results using the spectral element method and Boussinesq approximation with purely physical viscosity and diffusivity. The Schmidt number is chosen away from unity and boundary conditions are no-slip in an effort to bring the simulations closer to physically realizable conditions.

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