

Confined flow of suspensions modeled by a
frictional rheology
Supplementary Materials

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September 19, 2014

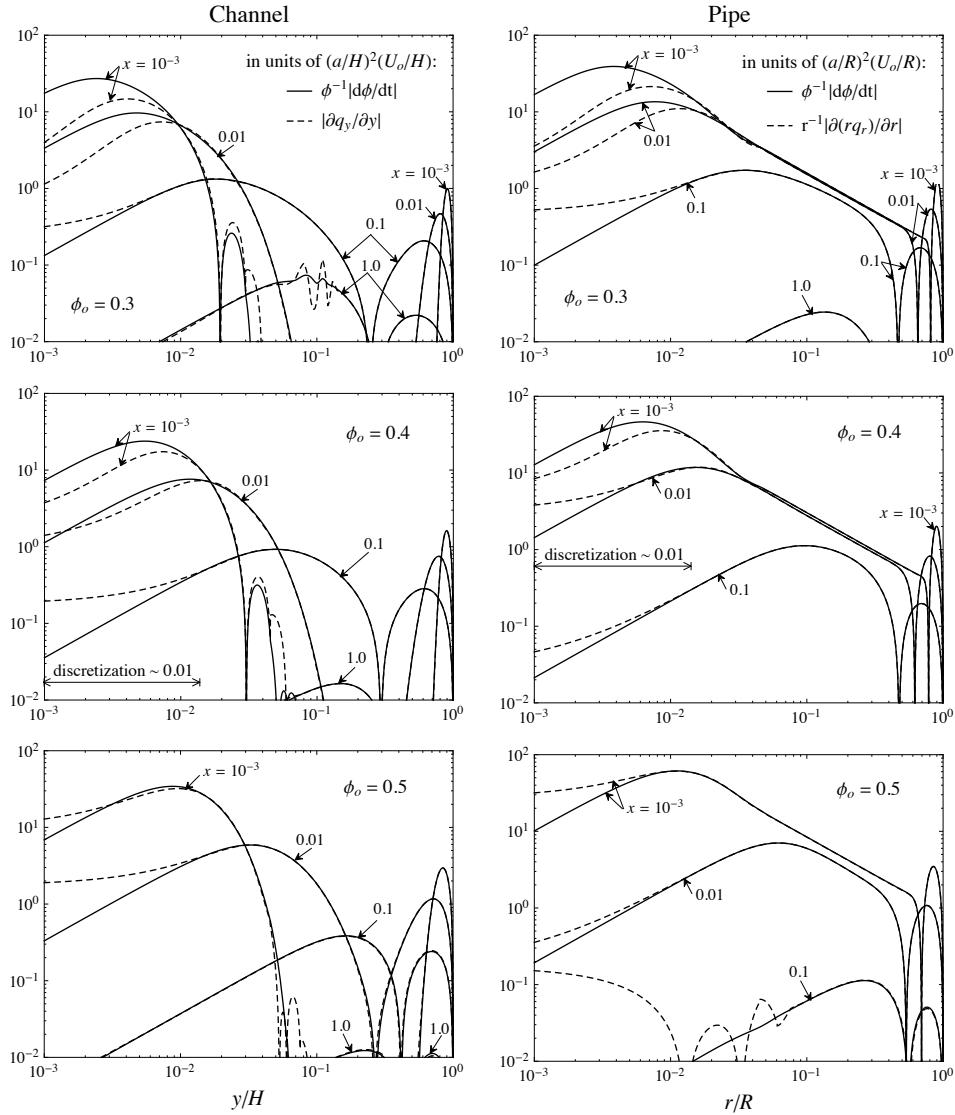


Figure 1: The left and right hand sides of the consolidation equation (5.1-5.2), evaluated from the numerical solution at various channel cross-sections for the channel (left) and pipe (right) flow development. The numerical solution error (disagreement between solid and dashed lines) is generally not discernible across the entire channel/pipe width with the exception of a one-discretization-step-thick region at the channel/pipe center.

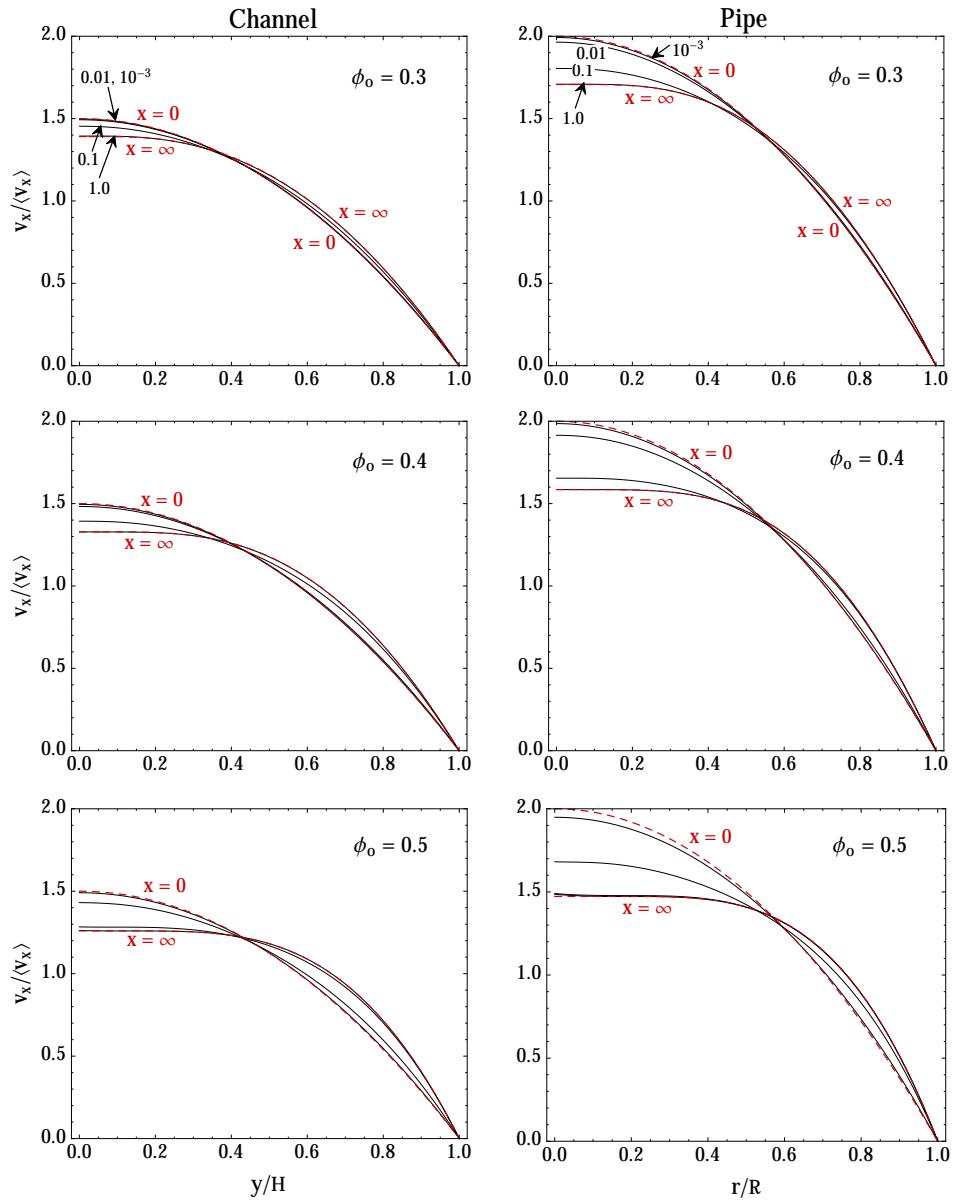


Figure 2: Profiles of the suspension axial velocity at a number of cross-section in developing channel (left) and pipe (right) flows for different inlet volume fraction ϕ_o .

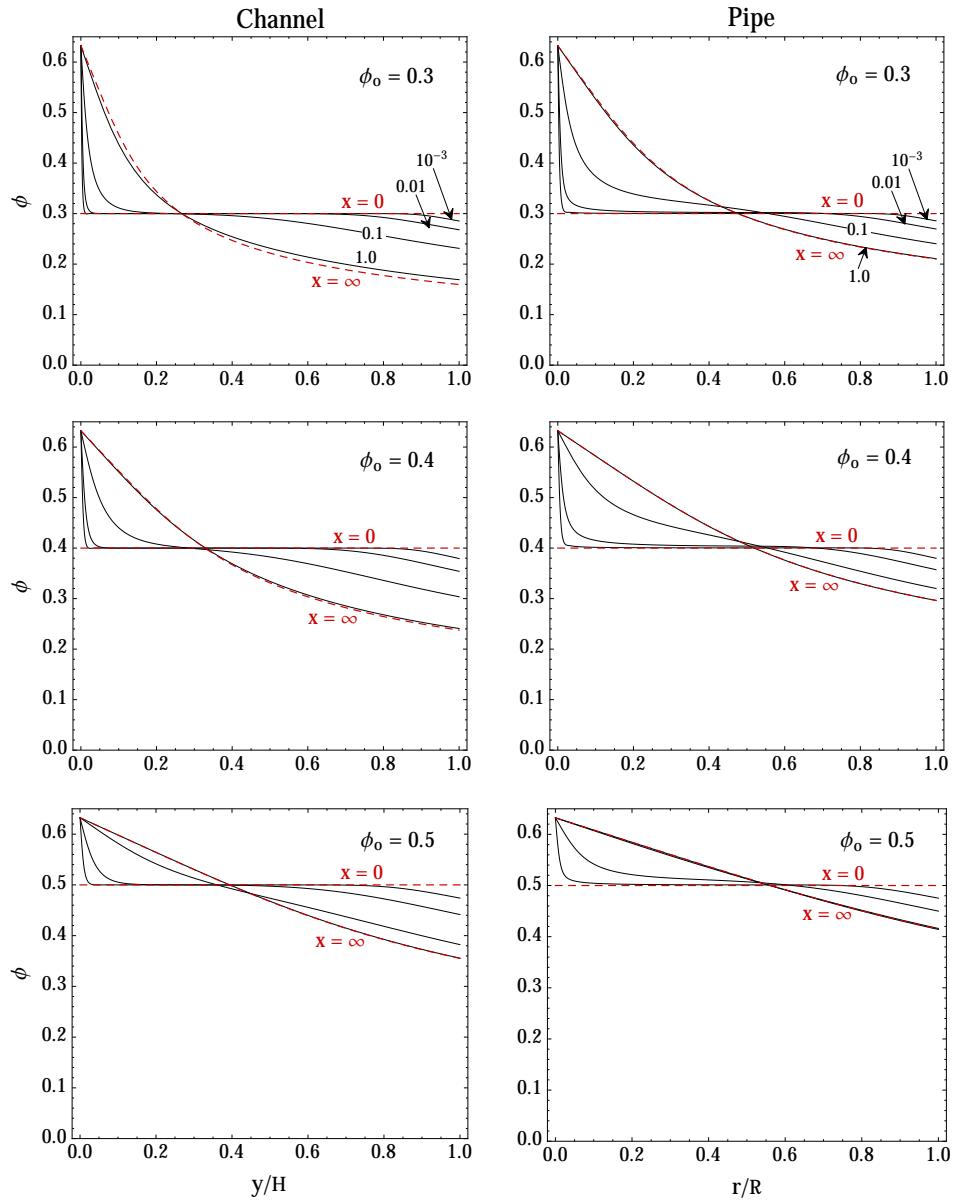


Figure 3: Profiles of the suspension solid volume fraction at a number of cross-section in developing channel (left) and pipe (right) flows for different inlet volume fraction ϕ_0 .

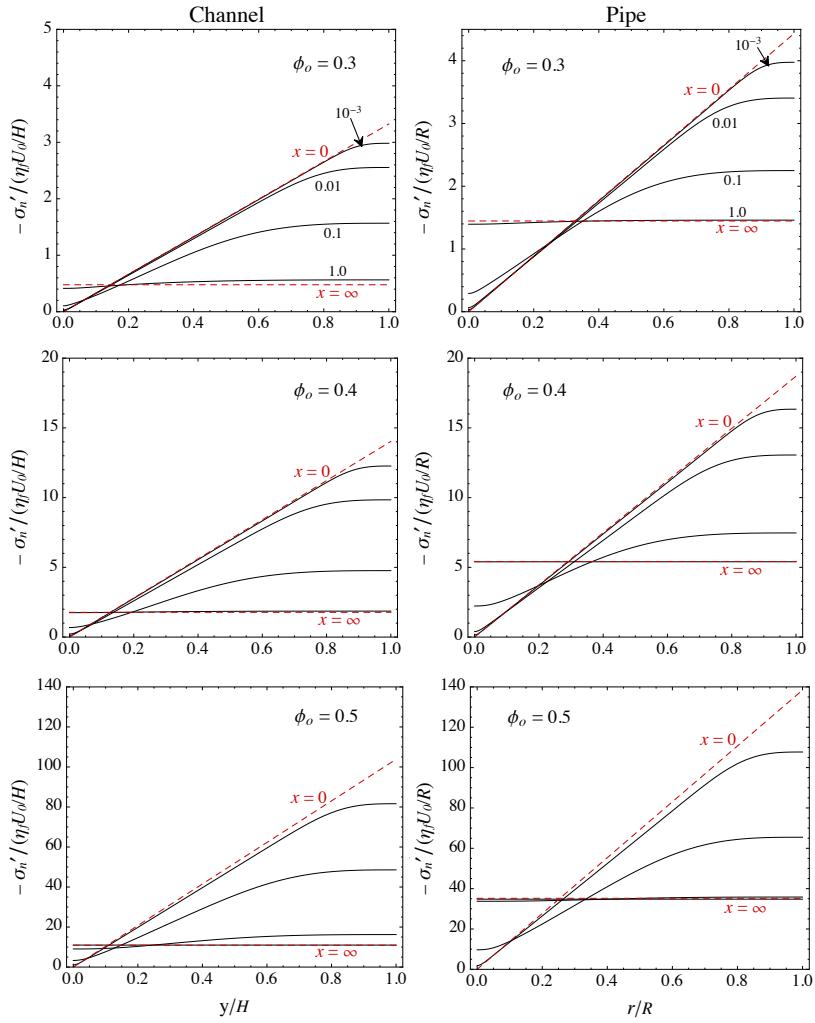


Figure 4: Profiles of the suspension particle pressure at a number of cross-section in developing channel (left) and pipe (right) flows for different inlet volume fraction ϕ_o .