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LINEAR AND NON-LINEAR PERSPECTIVES ON THE INSTABILITY OF SHEAR FLOW WITH FINE DUST

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ABSTRACT

This paper brings together theoretical models, numerical and laboratory observations to provide a comprehensive understanding of shear instabilities in flows that contain dust particles. This paper also explores how dust affects shear instability in various contexts, including planetary, industrial, and atmospheric environments.

KEYWORDS: *Shear flow, Instability, Dust particles, Rayleigh Number, Richardson Number.*