Resistive Force Theory for Quasi-static Intruders STEPHAN KOEHLER, physics, WPI — Resistive Force Theory was originally developed to calculate forces on slender filaments at low Reynolds number, and recently adapted to drag on cylindrical objects slowly moving through granular media in the horizontal direction. For low Reynolds numbers the contribution of the ends to the drag can be non-negligible, as can be the curvature of the filament. Here we present experimental results for the granular case, and observe surprising similarities between quasi-static granular media and viscous fluids.

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