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Jamming in Frictionless and Frictional Systems LEO SILBERT, Southern Illinois University, SIU TEAM — The study of jamming of static packings of frictionless spheres has revealed many interesting features that signal the approach of the jamming transition as the packing fraction is varied. This has motivated recent efforts to investigate how jamming occurs under the influence of other parameters such as shearing and thermal agitation. Using granular dynamics simulations we compare and contrast how signatures of jamming in frictionless and frictional systems depend on how the jamming transition is approached. In static systems the packing fraction is varied as previously studied in purely frictionless systems. This method provides a suitable method to identify the random loose packed state. In the other case, structural and dynamical features are studied in granular flows down an inclined plane as the inclination angle is reduced towards the angle of repose.

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