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### **Rigidity and Excitations in Jammed Solids**

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Jamming particles together can produce a rigid structure. As the geometrical constraints between particles become important, a fluid can lose its ability to flow. The jamming transition, at least at zero temperature for spheres, is sharp and has properties associated with both first and second order transitions. We have studied the properties of solids created by jamming. We find that they are unusual and provide a new way of thinking about disordered systems generally. I will give an overview of the properties of these systems, concentrating on the anharmonic as well as the anharmonic properties of the normal-mode excitations.