ABSTRACT:

I will discuss the dynamics of deformable objects impacted by a source of momentum. Examples will include hard (elastic) objects impacted by another hard object in simple geometries (rods and sheets), soft objects (liquids) impacting a solid, and the case of a soft object deforming in another even softer medium (gas). I will underline the interest of these observations for the problem of fragmentation in general, and for understanding natural phenomena like rain.