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Rigidity phenomena in random point sets.

In several naturally occurring (infinite) point processes, the number of points inside a finite domain can be determined, almost surely, by the point configuration outside the domain. There are also other processes where such "rigidity" extends also to a number of moments of the mass distribution. The talk will focus on point processes with such curious "rigidity" phenomena, and their implications. We will also talk about applications to stochastic geometry and some questions in harmonic analysis. (Received September 22, 2015)