The Physics of Human Behavior

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Physics has been extremely successful in describing our natural world, from the very small to the very large scales. In particular, statistical physicists are used to deal with many particles and this is perhaps the reason why large scale social systems have attracted so much attention within the physics community. However, as we will argue in this talk, the study of human collective behavior is not as easy as dealing, for instance, with ideal gases. The reasons are multiple, among which one can mention the fact that we do not know what are the laws describing most human behaviors and that in many dynamical processes details really matter. Through the dissemblance of 3 different examples of human collective behavior, we will show what are the experimental and theoretical challenges in the study of large scale social systems and propose a way to tackle such problems.