

# Human Dynamics: From Human Mobility to Predictability

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**Abstract.** A range of applications, from predicting the spread of human and electronic viruses to city planning and resource management in mobile communications, depend on our ability to understand human activity patterns. I will discuss recent effort to explore human activity patterns, using the mobility of individuals as a proxy. As an application, I will show that by measuring the entropy of each individuals trajectory, we find can explore the underlying predictability of human mobility, raising fundamental questions on how predictable we really are. I will also discuss the interplay between human mobility, social links, and the predictive power of data mining.