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Are we in our travel decisions self-determined? CHRISTIAN SCHNEIDER, MIT , THOMAS COURONNE, ZBIGNIEW SMOREDA, Orange Labs, MARTA GONZALEZ, MIT — Mobile phone data, as saved by every phone provider worldwide, allows us to extract information about human mobility. It can be mainly used to study the locations and routes of each mobile phone user during entire months. In order to gain deeper understanding of the inherent travel decisions of the daily trips measured by phone data, we compare them statically with those extracted from 10,000 trajectories reported in a travel diary survey. We identify and compare from both data sets the underlying trip decisions networks or motifs. Interestingly, although millions of different motifs are possible, in both data sets we found similar motif distributions. Hence, we develop a simple model, which could reproduce not only the size distribution of the motifs, but the motifs themselves and answer the opening question.

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