

On Measures for Groups of Trajectories

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Abstract We present a list of measures for a single trajectory, including measures that require the presence of other trajectories, such as the centrality of a trajectory amidst other trajectories. Then, we introduce three different views in order to extend measures of a single trajectory to a group, namely the representative view, the complete view and the area view. Furthermore, we give measures that exist only for a group of trajectories, like density and formation stability. We also show that it may be possible to define new measures by combining trajectory data with data from other sources, such as the environment where the entities move. Finally, we discuss several tasks: settlement selection, visualization and segmentation, where measures on groups of trajectories are necessary.

Keywords Trajectories, Groups of trajectories, Movement attributes, Measures