Correlated random walk

Purpose

The purpose of this model is to simulate the movement path of a correlated random walk. This model should give a building block for more complex agent-based model focusing on correlated random walk.

Entities

The model contains mobile agents moving though a homogenous landscape. The agents are characterized by their coordinates (x,y), movement velocity (Euclidean 2D vector) and facing direction (degrees).

Process overview and scheduling

During initialisation, the agent is loaded into the model. The starting point has coordinates of [0,0]. At every time step the agent rotates towards a specific facing direction in degrees (°). This rotation follows a Von Mises distribution with k = 10. The agent moves then one step with a Euclidean distance of 1 in the facing direction.