GIScience 2018 Workshop on
Analysis of Movement Data (AMD'18) https://z.umn.edu/AMD2018

Scope. The past 10-15 years computational movement analysis (CMA) has evolved as an important stream of research in GIScience. However, many challenges remain, such as integration of trajectories with environmental and context data, integration and analysis of data acquired using different sensing modalities and sensors, scale-adaptive analysis, visualization of movement, integration of analytical and visual methods, modeling and simulation of movement, passing from individual to collective movement, dealing with massive data in human mobility analytics, or linking patterns back to behavioral events and processes.

Objectives. This workshop pursues two aims: first, to provide a platform to discuss recent trends, and review the current state of the art in this domain; and second, to identify the key challenges for future research and (re-)define the research agenda.

Themes. We invite submissions of **short papers** on the general theme of movement and mobility analytics, including:

- Big mobility data analytics and predictive modeling
- Making movement analysis context-aware, considering the static and dynamic environment
- From individuals to collectives: Modeling and analyzing interactions between individuals
- Integrating different sensors and sensing models (checkpoint sensing vs continuous GPS tracking)
- From analysis to modeling: Simulation of movement and mobility
- Visualization and visual analytics in support of movement analysis
- From patterns to processes: Bridging the semantic gap
- Inferring behaviors and motivations underpinning movement
- Geoprivacy issues and geomasking methods for mobility data

We are interested in work dealing with **any** type of moving object (people, animals, vehicles, goods etc.).

Format. The workshop will consist of research talks selected from this Call and a subsequent panel session and break-out session to reflect on some of the key ideas of the workshop in detail.

Special issue. A special issue, with the same scope as the workshop, will be published in the *International Journal of Geographical Information Science* (*IJGIS*). Submissions to the special issue are open and may be made either by the workshop participants or others interested in the theme. Participation in the workshop does not guarantee acceptance in the special issue, and all submissions will be submitted to a review process that follows *IJGIS* standards. The full papers will be due only after the workshop, after an open call.

Submission guidelines. Submissions of **short (1500 words) workshop discussion papers** (in PDF format) should be directly uploaded to the AMD'18 webpage on EasyChair: https://easychair.org/conferences/?conf=amd2018.
For more information, please see workshop website: https://z.umn.edu/AMD2018.

Important dates.

- Deadline for workshop submissions (1500 words): 30 April 2018
- Decisions to authors: 31 May 2018
- Workshop: 28 August 2018
- Open Call for Special Issue of *IJGIS* sent out: 15 September 2018
- Full paper submission for special issue: 31 January 2019

Organisers:

Somayeh Dodge – University of Minnesota, Twin Cities, USA.

Song Gao – University of Wisconsin, Madison, USA.

Martin Tomko – University of Melbourne, Australia.

Robert Weibel – University of Zurich, Switzerland.