# MOVE – SHOWCASE Working Days on tracking recreational behavior

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Venue: To be announced

Time (tentative): 2 days October/November 2011. To be announced

The Working Days aim at the development of concepts of recreational behavior for the analysis of GPS tracks of visitors. This will include different types or stages of analysis related to a) entire data sets for a cohort of 'respondents', b) data sets for single respondent, c) tours for a single respondent (between stops), d) ‘focal’ analysis (involving points in a given (temporal) window around a point (speed, acceleration, angular change, etc) and e) characteristics of single points.

Emphasis will be put on specific issues related to recreational behavior (which is aimed less at reaching specified destinations than other types of transport) and on application of results to management/planning in relation to recreation: Where do crowding occur? What are the scenic preferences? How far do visitors go? To what extent do visitors leave the trail network? Etc.

*The Working Days will include:*

* Presentations by the organizers
* Invited presentations of case-studies
* Presentation from participants based on the workshops’ assignment; i.e. analysis of the provided data (see below)

The *data set covering Val Müstair in the Eastern part of Switzerland will* *be provided* to the participants one month ahead of the workshop[[1]](#footnote-1). This data set includes:

* Numerous GPS-tracks of hikers, mountain bikers, skiers, and snowshoers (points)
* A detailed digital elevation model (raster)
* A land cover map (polygons)
* Summer trails (poly lines)

*Assignment:* participants are encouraged to acquaint themselves with the data set and prepare a presentation of considered analytical approaches. Prototype applications based on the developed methods can also be presented. The exact terms of reference of the assignment will be provided with the data set one month a head of the workshop.

*Analysis can (for instance) include:*

* Automated Pre-processing:
  + Removal of erroneous points
  + Noise Handling
  + Detection of stops
  + Trajectory reconstruction for the extraction of tours (e.g. routes between stops, track segments, etc)
* Analysis of places
  + Visitor loads on locations
  + Visitor loads of the trail network (map matching of the points to the path network must be considered)
* Analysis of visitor types
  + Tour duration
  + Stop frequency
  + Avg. speed
  + On-/off track activities
  + Etc.
* Analysis of tours (aggregation and generalization)
  + Length
  + Duration
  + Avg. speed
  + Various aggregates – like altitude difference, land cover distribution, visibility characteristics etc.
* Analysis of choices made along the route

1. As a point of departure the track data are generated by the MAFREINA project (http://www.mafreina.ch). The results of the project has not been published yet. The data set is therefore only for internal use in the MOVE Working Days. The data set MUST NOT be distributed to a third party without the permission of the project coordinator of the MAFREINA´s project Reto Rupf. Further publications based on this data set will also require a written accept from the coordinator. [↑](#footnote-ref-1)