

# Discovering Personal Places from Location Traces

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**Abstract—** Sensing and computational capabilities in smartphones are enabling attractive new applications in the area of location aware systems. Location aware devices can accurately compute their physical location in the form of latitude and longitude. However places contain much more valuable information to user rather than coordinates. A place is important to a user's personal daily life and carries socially important meanings to a user such as a place where one studies, works, eats, lives etc. GPS enabled devices like smartphones and tablets use location as a context in applications to share their current location. A GPS log of a moving object contains time stamped latitude and longitude information. The discovery of a user's places is a key challenge and involves mapping of GPS data log to meaningful personally important places. In this paper, we propose an algorithm that extracts a user's personally important places from location traces, and evaluate the algorithm with real user's data.

**Keyword—** Place discovery, Place recognition, Location aware computing, Significant places, Personal places.



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