

Call For Paper



The First ACM International Workshop on
Mobile Location-Based Service (MLBS)



Beijing, China

September 18th, 2011

In conjunction with ACM UbiComp

<http://mwnet.cse.ust.hk/MLBS11/>

KEY DATES

- June 21st, Extended abstract (4 pages, ACM two-column format)
- June 25th, Acceptance notification
- July 10th, Final manuscript due (Max 10 pages, ACM two-column format)

The number of “smart” wireless devices such as mobile phones and iPad-like computers has been rapidly growing. Being able to keep track of locations of such mobile devices can enable Location-Based Service (LBS), which is rapidly becoming the next important ubiquitous mobile service.

Global Position System (GPS) was tested successfully to work with mobile phones in 2004. Its major shortcomings are high power consumption, long TTFF (time to the first fix), and unavailability in urban tunnels and indoor. Indoor positioning and indoor navigation (IPIN) is a capability that is in high demand in cities. Although solutions using WIFI signals can achieve reasonably good accuracy, they often require high access-point density, time-consuming site survey and signal measurement. A good localization solution is likely to be one that combines signals from complementary sources such as cellular signal, WIFI, Bluetooth and RFID. Data-driven solutions can also assist location positioning. For instance, maps and POIs (points of interest) can be mined from users’ traveling history for better accuracy.

Another important research area of LBS is data storage and query processing. Fresh data must be stored and indexed as they arrive, and historical data must be timely archived to conserve main memory. Spatial query processing of LBS must be both fast and accurate. Furthermore, user privacy, including both location privacy and query privacy, must be preserved.

The 1st MLBS International Workshop invites researchers and practitioners to exchange and share research ideas, system design, development and evaluation experiences in the areas of LBS and localization techniques. Developing LBS often requires multi-disciplinary approaches, which include signal processing, signal fusion, data quality, data mining, machine learning, query processing, networking and distributed systems. Furthermore, LBS must safeguard privacy, conserve battery power, and is efficient in processing. This workshop encourages contributions on (but not limited to) the following topics:

- Outdoor location signals, e.g., GPS and AGPS
- Indoor location signals, e.g., WIFI, RFID and NFC
- Signal processing, filtering and error correction
- Inertial navigation systems
- Signal fusion
- Data quality issues
- Motion tracking
- Privacy-aware algorithms
- Image-based location detection
- Location-based image processing
- Location-aware query processing and optimization
- Location-aware distributed indexing
- Stream-based one-pass data mining techniques
- Spatially-enabled data mining techniques
- Spatial-temporal query languages
- Software architectures for mobile sensor networks
- Novel applications, e.g., social, gaming
- Experimental evaluations
- Development and deployment efforts
- Trial and user experiences

Workshop Co-Chairs

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