



## CALL FOR PAPERS

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**The First ACM International Workshop on Mobile Entity Localization and Tracking in GPS-less Environments (MELT 2008)**

**URL:** <http://www.parc.com/MELT08>

***San Francisco, California, September 19, 2008, co-located with ACM MobiCom08***

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Location-awareness is a key component for achieving context-awareness. Recent years have witnessed an increasing trend of location-based services and applications. In most cases, however, location information is limited by the accessibility to GPS, which is unavailable for indoor or underground facilities and unreliable in urban environments. Much research has been done, in both the sensor network community and the ubiquitous computing community, to provide techniques for localization and tracking in GPS-less environments. Novel applications based on ad-hoc localization and real-time tracking of mobile entities are growing as a result of these technologies. It is time to bring leaders from both the academic and industry research communities to discuss challenging and open problems, to evaluate pros and cons of various approaches, to bridge the gap between theory and applications, and to envision new research opportunities in MELT.

The workshop seeks to provide a forum for the state-of-the-art technologies in mobile localization and tracking and novel applications of location-based services. The one-day workshop will have a combination of invited talks, technical presentations and discussions.

Possible topics of interests include, but are not limited to:

## Technology topics:

- \* Algorithms for Localization and Tracking
- \* Opportunistic Localization (using existing signals in the environment)
- \* Environment Mapping and Map Representations
- \* Dynamic/ad-hoc Mapping of Environments
- \* Cheap and Accurate Sensing for MELT (RF, Ultrasound, IR, UWB, RFID etc.)
- \* Collaborative Localization and Data Fusion
- \* Combined Camera/Sensor Localization and Tracking
- \* Hybrid Location-Determination (e.g., RF+vision)
- \* Secure and Robust Localization

## Application topics:

- \* Search and Rescue Operations
- \* Asset Tracking/Yard Management
- \* Material/In-process flow control
- \* Inventory Tracking + Location
- \* Vehicular Tracking in Intelligent Transportation Systems
- \* Sports and Entertainment
- \* Indoor Navigators/Activity Recommenders
- \* Automatic/Robotic Warehouses/Factories

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## Important Dates

Submission deadline: **May 26, 2008**  
Acceptance notification: June 23, 2008  
Camera-ready version: July 7, 2008  
Workshop date: September 19, 2008

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## Submission Details

The workshop seeks papers on preliminary technique results, novel application concepts, software and hardware research toolkits, statements of open challenging problems, mathematical formalization and solutions. Selected papers will be grouped, presented and discussed at the workshop.

All paper submissions will be handled electronically. Authors should prepare a Portable Document Format (PDF) version of their full paper. Papers must be no longer than 6 pages, in font size no smaller than 10 points, and must fit properly on US "Letter"-sized paper (8.5 W 11 inches). Margins must be of 1 inch on all edges (top, bottom, left, and right) of each page.

Papers must be submitted electronically through the [EDAS system](http://edas.info) (<http://edas.info>). The submission process is the same as the [MobiCom08](http://www.sheridanprinting.com/typedept/mobicom.htm): <http://www.sheridanprinting.com/typedept/mobicom.htm>.

Papers will be reviewed by the Technical Program Committee. Accepted papers will be published by published by ACM Press and distributed at the workshop; copies of the Proceedings will also be available for sale from ACM after the workshop.

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## **Organization Committee**

General Co-Chairs:

Dr. Ying Zhang (Palo Alto Research Center)

Prof. Yinyu Ye (Stanford University)

## **Technical Program Committee**

Maurice Chu: Palo Alto Research Center

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