

# Second ACM Multimedia Workshop on Geotagging and Its Applications in Multimedia (GeoMM 2013)

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## ABSTRACT

The Workshop on Geotagging and Its Applications in Multimedia (GeoMM 2013) focuses on new applications and methods of geotagging and in geo-location support systems. As the location based multimedia becomes more and more popular in the era of Web and mobile applications, the increase in the use of geotagging and improvements in geo-location support systems open up a new dimension for the description, organization and manipulation of multimedia data. This new dimension radically expands the usefulness of multimedia data both for daily users of the Internet and social networking sites as well as for experts in particular application scenarios. The workshop serves as a venue for the premier research in geotagging and multimedia, and continues to attract submissions from a diverse set of researchers, who address newly arising problems within this emerging field.

## Categories and Subject Descriptors

H.2.4 [Systems]: Multimedia databases; I.2.10 [Artificial Intelligence]: Vision and Scene Understanding

## General Terms

Algorithm, Application, Theory

## Keywords

geotagging, geolocation, social media, location based service

## 1. BACKGROUND AND MOTIVATION

In recent years, the popularity of GPS sensors and open geographical databases has motivated a lot of research works on geotagging in the multimedia society. The goal of this workshop is to bring together cutting edge research in geotagging as well as novel applications related to geotagging. It will help facilitate in-depth discussions, share existing tools, and ultimately enhance the research efforts in this area.

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Given that ACM Multimedia is a leading forum on related problems, we believe such a workshop will present vision and insight from leading experts and practitioners on the developing directions of related research.

Geotagging is the process of adding geographical identification metadata to various media files such as photos, videos, websites, messages, and tweets. It is not limited to GPS sensor data but an extension of current multimedia files with a wide variety of location-specific information. Due to the geolocation functions of social media websites and the popularity of smart phones with GPS sensors, we have witnessed a huge amount of geotagged media in recently years. For example, Flickr now hosts 100+ million geotagged photos and Foursquare records 3 million geo-tagged checked-in per day. The large amount of geotagged data has opened doors to new commercial applications and attracted more and more research interests from the research community. In recent years, many researchers have carried out research studies on different aspects of geotagging, including photo annotation, 3D reconstruction, trajectory mining, tourism visualization, and so on. The research on geotagging also starts to gain significant support from the government funding agencies. For example, in 2011 IARPA announced a new program called “Finder” that aims to infer the geolocation for a given photo or video clip. In 2010, the MediaEval Multimedia Benchmark ([www.multimediaeval.org](http://www.multimediaeval.org)) introduced a `§PlacingT` task dedicated to geo-tag prediction for videos. Many companies have provided services on geotagging applications, such as Google Map and Facebook Places.

The goal of this workshop is to bring together cutting-edge research in geotagging as well as novel applications related to geotagging. It will help facilitate in-depth discussions, share existing tools, and ultimately enhance the research efforts in this area. The workshop will serve as a forum for the presentation and synthesis of vision and insight from leading experts and practitioners on the developing directions of geotagging research related to multimedia.

## 2. TOPICS OF INTERESTS

In terms of author audience, this workshop focuses on three main themes: collection and estimation of geotags; application of geotagging; and visualization of geotagged information. More specifically, we solicited paper submissions with the following (but not limited to) research topics:

- Location estimation: inferring geolocation from visual and audio cues

- Mining unstructured web text (e.g., news, blogs) for location
- Knowledge discovery from open geographical databases and web photos
- Mining geotags from mobile devices and sensor network
- Photo and video annotation
- Business applications (e.g., geomarketing, targeted advertising, recommendation, etc.)
- Social networking
- Privacy and security issues
- 3D construction of world model
- Visualization of tourism, travel routes, and other spatial-temporal patterns

### 3. PROGRAM COMMITTEE

We are thankful to the members of our program committee:

- Jaeyoung Choi, International Computer Science Institute
- Noel Codella, IBM T.J. Watson Research Center
- Venkatesan Ekambaram, UC Berkeley
- Giulia Fanti, UC Berkeley
- Andrew Gallagher, Cornell University
- Claudia Hauff, Delft University of Technology
- Nathan Jacobs, University of Kentucky
- Rongrong Ji, Columbia University
- Shen Jialie, Singapore Management University
- Tao Mei, Microsoft Research Asia
- Michele Merler, IBM T.J. Watson Research Center
- Yue Shi, Delft University of Technology
- Sebastian Schmiedeke, Technische Universitaet Berlin
- Steven Schockaert, Cardiff University
- Yang Wang, University of Manitoba
- Felix Yu, Columbia University
- Lei Zhang, Microsoft Research Asia

### 4. WORKSHOP ORGANIZERS

**Liangliang Cao** is a research scientist of the Multimedia Research Group at the IBM T. J. Watson Research Center. He also holds an adjunct faculty position at the Columbia University in the City of New York. He has published more than 40 peer-reviewed articles in the area of multimedia and computer vision. He and his colleagues won the First place in a number of visual recognition challenges including ImageNet Challenge2010, ImageCLEF medical classification challenge 2012 and 2013. He received many awards including IBM Outstanding Accomplishment(2012), the Best Paper Award in the First International Workshop on Big Data Mining (2012), IBM Watson Emerging Leader in Multimedia and Signal Processing (2010), Facebook Fellowship Finalist (2010), and UIUC Computational Science and Engineering Fellowship (2009-2010). He is an area chair of ACM Multimedia 2012 and IEEE WACV 2014. He is a guest editor of TOMCCAP, CVIU and IEEE Multimedia Magazine. He is a general chair of Greater New York Area Multimedia and Vision Meeting from 2012 to 2013.

**Gerald Friedland** is Director of Audio and Multimedia Research at the International Computer Science Institute, a private research lab affiliated with the University of California, Berkeley. He was program co-chair of the IEEE International Symposium on Multimedia 2008 and 2009. He co-founded the IEEE International Conference on Semantic Computing and is a proud founder and program director of the IEEE International Summer School on Semantic Computing at UC Berkeley. He is also a program co-chair of ICME 2012 and a program committee member of ACM Multimedia 2009, senior TPC member 2010, and Grand Challenge chair 2011. He has published more than 100 peer-reviewed articles in conferences, journals, and books. He is associate editor for ACM Transactions on Multimedia Computing, Communications, and Applications. He is the recipient of several research and industry recognitions, among them the European Academic Software Award and the Multimedia Entrepreneur Award by the German Federal Department of Economics. Most recently, he leads the team that won the ACM Multimedia Grand Challenge in 2009.

**Pascal Kelm** is a PhD student at the Communication Systems Group (Technische Universitaet of Berlin) and received his Dipl.-Ing. degree in electrical engineering from TU Berlin, in 2009. His research expertises include multimedia analysis and retrieval, machine learning and multimodal fusion techniques for automatic geotagging in social media. He has actively participated in several EU funded multimedia oriented research projects including Petamedia, OpenSEM, VideoSense and is organizing the Placing task in the MediaEval benchmarking initiative.