

CALL FOR PAPERS

International Journal Of Computer Vision

SPECIAL ISSUE ON

Advances in Large-Scale Visual Media Geo- Localization

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Aim and Scope: Developing scalable computer vision algorithms for visual media geo-localization is a major challenge. The aim of such methods is to determine *where* an image/video was taken. The increasing availability of computer resources, continuing improvement in resolution of overhead sensors, and the availability of planet-scale geo-tagged image collections have given great impetus to this field of research. It will continue to be a fertile area for growth in both research analysis and experimentation in many application fields in the years ahead.

Visual media geo-localization involves complex matching processes between the query media content (2D/3D features) and the reference data (overhead and geo-tagged ground-level imagery). It encompasses many disciplines, including pre-processing and processing earth-scale overhead and ground-level reference imagery (i.e. satellite, elevation maps, LIDAR, open-street maps, geo-tagged street-view images, etc) to extract relevant information (i.e. land-types, roads, buildings, etc), efficient indexing of extracted geo-information, alignment and fusion of (heterogeneous) reference imageries, satellite imagery segmentation, low-level and high-level feature extraction, ray-tracing and synthesized imagery generation, wide imagery registration, multi-view geometry and 3D reconstruction, 2D/3D matching, geometric verification, machine learning, optimization, probabilistic inference, supervised and automatic image/video calibration, fast search, and human-machine interaction.

Open CFP, Topics and Submission Guidelines

- This special issue of IJCV on *Visual Media Geo-Localization* solicits original contributions in the following areas, but other topics dealing with big data and audio-visual indexing are welcome: *Automated 3D World Model Reconstruction from Satellite Imagery and/or Open-Street Views; Multi-Modal Visual Sensor Data Fusion; Unsupervised Clustering of Land-Types using Multi-Spectral & Satellite Imageries; Visual Feature and Information Extraction from Large-Scale Imagery; Understanding and Modeling Uncertainties in Visual and Geospatial Data; Semantic Generalization of Visual and Geospatial Data; Representation, Indexing, Storage, and Analysis of City-to-Earth Scale Models; Integrated Processing of Point Clouds, Image, and Video Data; Control Mechanisms that aid in Visual Analysis and Geo-Localization; Rendering and Visualization of Large-Scale Models, Semantic Labels and Imagery; Applications of Visual Analysis and Geo-Localization of Large-Scale Imagery; and Datasets and Model Validation Methods for Analysis and Geo-localization Research.*
- This is an open call-for-papers. IJCV journal is a ****very high-ranking**** computer vision journal and the Editors-In-Chief of IJCV has clearly indicated that we have to adopt a rigorous external reviewing policy to assure the quality of the contributions.
- Only original, high-quality papers, in-line with the IJCV standard, will be considered for publication in this special issue. All submissions will be peer reviewed subject to the standards of the journal. Manuscripts based on previously published conference papers must be extended. Prospective authors should submit electronically their contributions through the IJCV website and choose "SI: Visual Media Geo-Localization" as the article type of the new submitted manuscript:

<https://www.editorialmanager.com/visi/default.asp>

Prospective authors are also advised to check with the guest editors whether or not their paper is suitable for this special issue prior to submission. The following information should be included in your e-mail: (1) *Title of the paper*, (2) *Authors names and affiliations*, and (3) *Extended abstract*.

Submission deadline, Publication date

- **Submission of full manuscripts: April 15, 2014.**
- **Notification to authors: July 15, 2014.**
- **Submission of revised manuscripts: September 01, 2014.**
- **Final decision on accepted papers: October 15, 2014.**
- **Publication of special issue: December 2014.**



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