

# Mining Multimedia Streams in Large-Scale Distributed Environments

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## Motivation:

The amount and complexity of digital media sources being captured to monitor traffic, weather, goods, factories, ports, health, etc. are continuing to grow at an incredible rate. Large-scale applications for multimedia search and query, surveillance, or information retrieval in these domains require capabilities that go beyond the traditional 'compute and storage' paradigm. Hence a distributed stream processing system is generally necessary to capture, filter, compress, and analyze multimedia streams to enable effective, incremental classification, and event detection. Multimedia stream mining is required not only to detect events or concepts for human consumption, but also for filtering and classification of data for further processing or storage. This special issue solicits state-of-the-art approaches and solutions in the area of multimedia stream mining in large-scale environments.

## Topics:

Original contributions, not currently under review or accepted by another journal, are solicited in relevant areas including (but not limited to) the following:

- Multimedia mining in large-scale environments
  - Distributed multimedia mining algorithms
  - Techniques for handling sparsely sampled, incomplete or noisy data
  - Techniques for mining very large and heterogeneous multimedia data sets and/or continual data streams
  - Distributed mining across multi-modal data sources and queries
  - Distribution and decomposition of multimedia stream analytics for resource adaptivity
  - Progressive/incremental stream processing and mining for data volume reduction
- System and Networking Challenges in Mining High-Volume Multimedia Streams
  - Information Management in Large-Scale Multimedia Mining Systems
  - Distributed Stream Processing Systems
  - Algorithms exploiting emerging computer architectures (multi-core, cell)
- Novel Applications of Multimedia Stream Mining for
  - Sensor Networks, P2P Systems, Enterprise Environments

Please note that the submitted papers must explicitly address issues for multimedia streams.

## Submission

Prospective authors should prepare manuscripts according to the *Information for Authors* as published in recent issues of the journal or at [www.computer.org/tkde/](http://www.computer.org/tkde/). Note that mandatory over-length page charges and color charges will apply. Manuscripts should be submitted through the online IEEE manuscript submission system at <https://mc.manuscriptcentral.com/cs-ieee>. Updated information of this call can be found at <http://lts4www.epfl.ch/tkde/>.

## Schedule

Deadline for paper submission:	<b>May 1, 2008</b>
Completion of first review:	<b>August 1, 2008</b>
Minor/Major revision due:	<b>September 15, 2008</b>
Final decision notification:	<b>November 1, 2008</b>
Publication materials due:	<b>November 30, 2008</b>
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