

# Topic 11

## Distributed and High-Performance Multimedia

Harald Kosh, Laurent Amsaleg, Eric Pauwels, and Björn Jónsson

Topic Chairs

In recent years, the world has seen a tremendous increase in the capability to create, share and store multimedia items, i.e. a combination of pictorial, linguistic, and auditory data. Moreover, in emerging multimedia applications, generation, processing, storage, indexing, querying, retrieval, delivery, shielding, and visualization of multimedia content are integrated issues, all taking place at the same time and - potentially - at different administrative domains. As a result of these trends, a number of novel and hard research questions arise, which can be answered only by applying techniques of parallel, distributed, and Grid computing.

The scope of this topic embraced issues from high-performance processing, coding, indexing, and retrieval of multimedia data over parallel architectures for multimedia servers, databases and information systems, up to highly distributed architectures in heterogeneous, wired and wireless networks.

We received 8 papers this year. We thank all the authors for their submissions. The submitted papers mostly dealt with issues in distributed video delivery, parallel coding, storage and transmission of multimedia data. After a rigorous review of these papers by all four committee members, two papers were selected for presentation and publication. The first one, entitled “An Evaluation of Parallelization Concepts for Baseline-Profile Compliant H.264/AVC” is an excellent evaluation of different multithreaded implementations for parallel decoding of H.264/AVC encoded videos. The second one, entitled “DynaPeer: A Dynamic Peer-to-Peer Based Delivery Scheme for VoD Systems” defines and implements an original Virtual Server to enhance the VoD delivery policy in Peer-to-Peer networks.