

ViSNext'21: 1st ACM CoNEXT Workshop on

Design, Deployment, and Evaluation of Network-assisted Video Streaming

In recent years, we have witnessed phenomenal growth in live video traffic over the Internet, accelerated by the rise of novel video streaming technologies, advancements in networking paradigms, and our ability to generate, process, and display videos on heterogeneous devices. Regarding the existing constraints and limitations in different components on the video delivery path from the origin server to clients, the network plays an essential role in boosting the perceived Quality of Experience (QoE) by clients. The **ViSNext** workshop aims to bring together researchers and developers working on all aspects of video streaming, in particular network-assisted concepts backed up by experimental evidence. We warmly invite submission of original, previously unpublished papers addressing key issues in this area, but not limited to:

- Design, analysis, and evaluation of network-assisted multimedia system architectures
- Optimization of edge, fog, and mobile edge computing for video streaming applications
- Optimization of caching policies/systems for video streaming applications
- Network-assisted resource allocation for video streaming
- Experience and lessons learned by deploying large-scale network-assisted video streaming
- Internet measurement and modeling for enhancing QoE in video streaming applications
- Design, analysis, and evaluation of network-assisted Adaptive Bitrate (ABR) streaming
- Network aspects in video streaming: cloud computing, virtualization techniques, network control, and management, including SDN, NFV, and network programmability
- Routing and traffic engineering in end-to-end video streaming
- Topics at the intersection of energy-efficient computing and networking for video streaming
- Network-assisted techniques for low-latency video streaming
- Machine learning for improving QoE in video streaming applications
- Machine learning for traffic engineering and congestion control for video streaming
- Solutions for improving streaming QoE for high-speed user mobility
- Analysis, modeling, and experimentation of DASH
- Big data analytics at the network edge to assess viewer experience of adaptive video
- Reproducible research in adaptive video streaming: datasets, evaluation methods, benchmarking, standardization efforts, open-source tools
- Novel use cases and applications in the area of adaptive video streaming
- Advanced network-based techniques for point clouds, light field, and immersive video
- Low delay and multipath video communication

❖ **ViSNext'21 Co-Chairs**

Farzad Tashtarian,
-Alpen-Adria-Universität Klagenfurt, Austria
Christian Timmerer,
-Alpen-Adria-Universität Klagenfurt, Austria
Halima Elbiaze,
-Université du Québec à Montréal, Canada
Tim Wauters,
-Ghent University, Belgium

❖ **Important Dates**

- | | |
|-------------------------------|---------------|
| → Paper Submission | Sep. 17, 2021 |
| → Notification of Acceptance: | Oct. 18, 2021 |
| → Camera-ready: | Oct. 25, 2021 |
| → Workshop Event: | Dec. 6, 2021 |

❖ **Submission Instruction**

Solicited submissions include both full technical workshop papers and white paper position papers. The maximum length of such submissions is up to 6 pages (excluding references) in 2-column 10pt [ACM format](#). Papers must include author names and affiliations for single-blind peer reviewing by the program committee. Authors of accepted submissions are expected to present and discuss their work at the workshop. Register and submit your paper [here](#).

❖ **Contact Us**

Any questions regarding submission issues should be directed to visnext21@itec.aau.at