

# Spezialisierungsfach „Rechner- und Netzarchitektur“ („Computer and Network Architectures“) Prof. Hellwagner

<b>Lehrveranstaltungen</b>	<b>LV-Leiter</b>	<b>LV-Termine</b>
Current Topics in Computer and Network Architectures: Multimedia Communication and Internet QoS (2 VK)	Hellwagner	WS 2008/09
Current Topics in Computer and Network Architectures: Architecture & Programming of Servers & Clusters (2 VK)	Hellwagner	SS 2009
Seminar in Computer and Network Architectures (2 SE)	Hellwagner	SS 2009
Selected Topics in Computer and Network Architectures: Audiovisual Compression: From Basics to Systems (2 VK)	Pereira	WS 2008/09
Current Topics in Distributed Multimedia Systems (2 VK + 2 PR)	Böszörményi, AssistentIn	WS 2008/09
Selected Topics in Distributed Multimedia Systems: ... (2 VK)	N.N.	SS 2009

# Multimedia Communication Group

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<http://www.uni-klu.ac.at/tewi/inf/itec/mmc>

- **Group Leader**
  - Prof. DI Dr. Hermann Hellwagner
- **Assistant Professor**
  - DI Dr. Christian Timmerer
- **University Assistants**
  - DI Janine Lachner
  - DI Ingo Kofler
- **System Engineers**
  - Andreas Griesser
  - Markus Waltl
- **Secretary**
  - Angelika Rossak
- **Project Assistants**
  - DI Dr. Michael Ransburg
  - DI Robert Kuschnig
  - DI Bernhard Reiterer
  - DI Michael Eberhard
- **Project Staff Members**
  - Michael Sablatschan
  - Mario Jonke
  - Christian Raffelsberger

# Research Areas

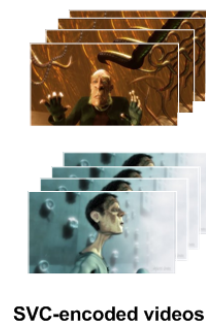
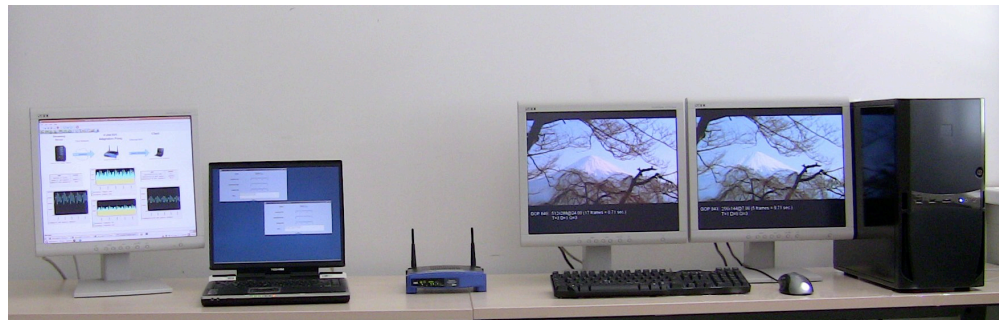
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- **Multimedia Communication and Adaptation**
  - Adaptive video streaming, protocols
  - Knowledge-based multimedia adaptation
  - Ambient, personalized, user-centric multimedia (UMA)
- **Distributed MPEG-21 Infrastructure and QoS Provisioning**
  - Metadata streaming, compressed processing
  - Distributed adaptation, cross-layer QoS optimizations/mappings
  - Prototype Adaptive Multimedia Tools and Services
- **MPEG-21 Standardization**
  - Digital Item Adaptation (DIA)
  - Metadata compression (MPEG-B) and streaming, file format
  - Reference software
  - ...

# Selected Projects

## In-network Video Adaptation

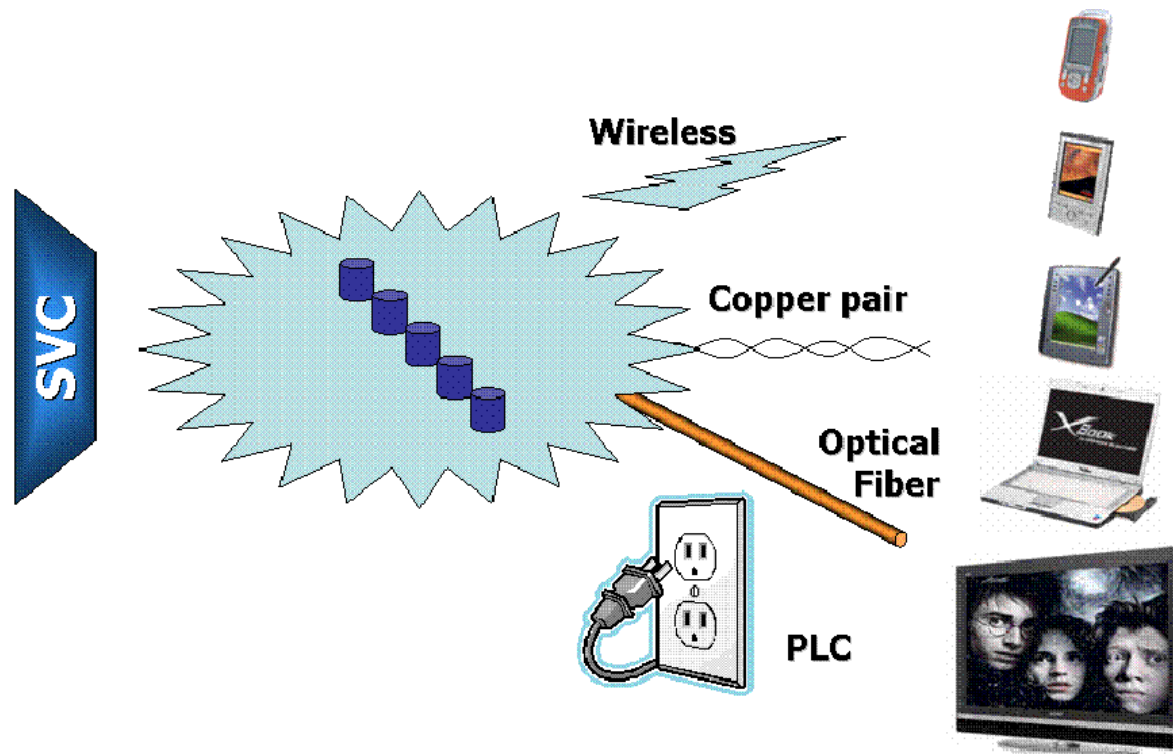
- **Goal:** on-the-fly video adaptation on an off-the-shelf wireless router (Linksys WRT 54 GL)
- **Approach:** utilize scalable video coding (ext. of AVC/H.264); adaptation in spatial, temporal, and SNR domain



# Selected Projects

## SCALIPTV

- **Goal:** design, implement, and evaluate an SVC-based IPTV/VoD architecture
- **Approach:** prototyping and trials in Klagenfurt & Steyr/RTV



# Selected Projects

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## Stream4iPhone

- **Goal:** interoperable, adaptive streaming of multimedia content to the iPhone
- **Approach:** utilize in-house ext. of the VLC based on MPEG-21

