Video Analysis

LV 188.329, WS 2016/17

Pre-lecture Meeting

Oct 3rd, 2016

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FAKULTÄT
FÜR !NFORMATIK

Faculty of Informatics

Study Courses

- **Media Informatics (066 935)**
  - Master Program, 1.5 ECTS
  - Module „Image and Video Analysis & Synthesis“
- **Visual Computing (066 932)**
  - Master Program, 1.5 ECTS
  - Module „Image and Video Analysis & Synthesis“
- **Didactic for Informatics (066 950)**
  - Master Program, 1.5 ECTS
  - Module „Image and Video Analysis & Synthesis“
- **Embedded Systems (066 504)**
  - Master Program, 1.5 ECTS
  - Module „Computer Vision“
- **Energy Systems and Automation Technology (066 506)**
  - Master Program, 1.5 ECTS
  - Module „Computer Vision“
- **Doctoral Programs**

Date, Time, and Location

- **Dates**
  - Oct 3rd (pre-lecture meeting)
  - Nov 7th, Nov 14th, Nov 21st, Nov 28th, Dec 5th, Dec 12th, Jan 9th, (Jan 16th substitution date)
  - Time
    - 10:00 – 12:00

- **Location**
  - Zemanek Room (Favoritenstrasse 9-11, ground floor)

- **Exams**
  - January 18th, 2017, 09:00 – 11:00, HS EI8
  - March 6th, 2017, 12:30 – 14:00, HS EI8

Course Material and Exam

- **Lecture notes**
  - Lecture slides will be provided via TUWEL.
  - Sign up for TISS and TUWEL course.
  - (How to access: video2016)

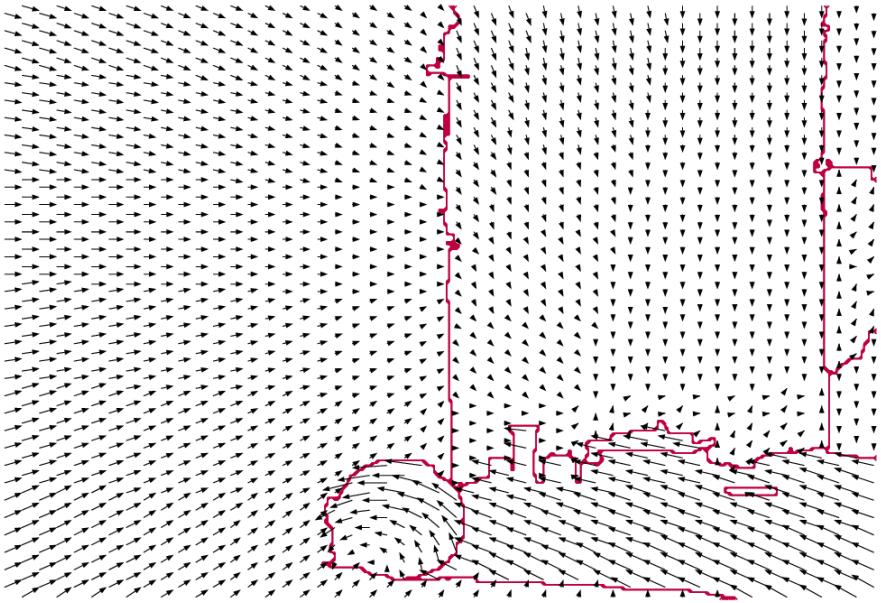
- **Exam**
  - Written exam
  - Sign up for the exam via TISS (registration period will be announced later).
  - When signing up for the exam, please, provide your email!

Course Contents

- **7 Nov:** Principles of Video Processing
- **14 Nov:** Filtering & High Speed Video
- **21 Nov:** Guided Filter & Cost Volume Filtering
- **28 Nov**: Optical Flow Estimation
- **5 Dec:** 3D Scene Reconstruction for 3D Film/TV Applications
- **12 Dec:** 3D Movie Making
- **9 Jan:** 3D Video Representation
- (**16 Jan:** In case one of the lectures above has to be shifted)

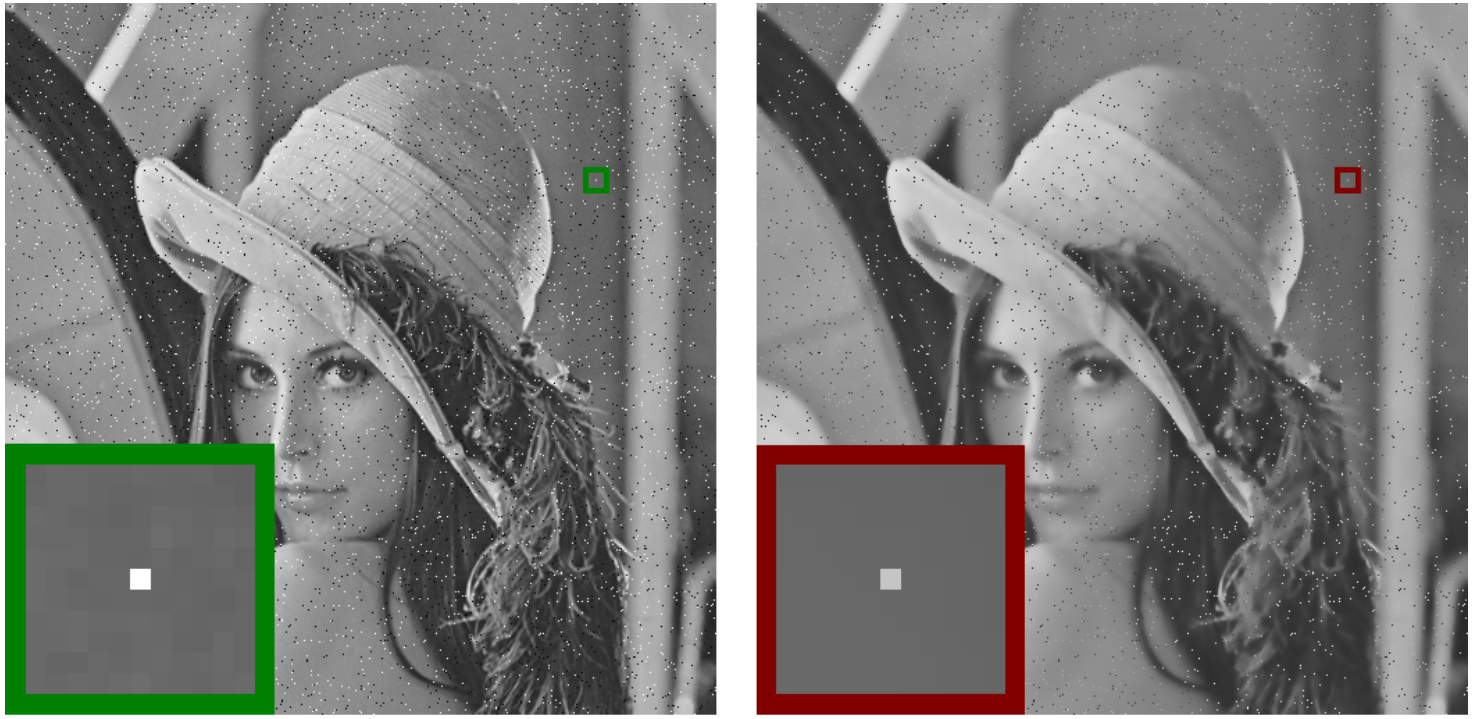
Course Contents

- **7 Nov:** Principles of Video Processing



Course Contents

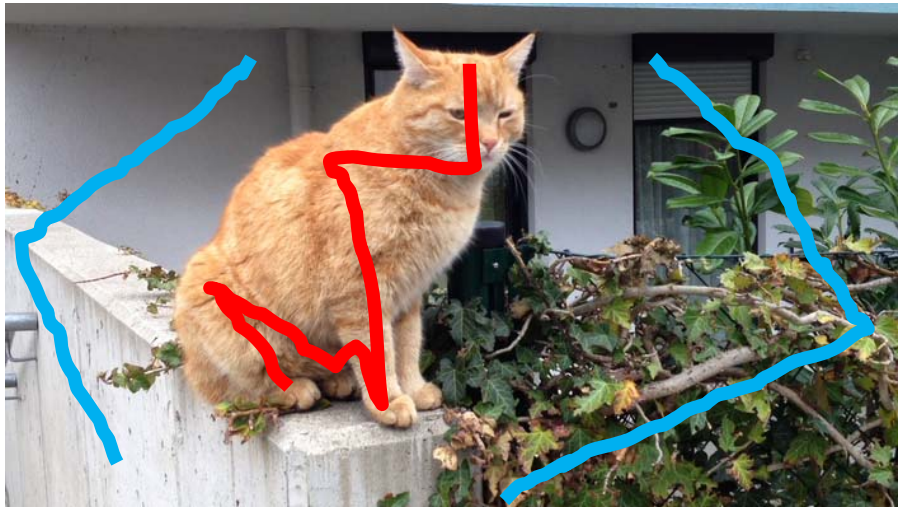
- **14 Nov:** Filtering & High Speed Video



Original Bilateral Filter

Course Contents

- **21 Nov:** Guided Filter & Cost Volume Filtering

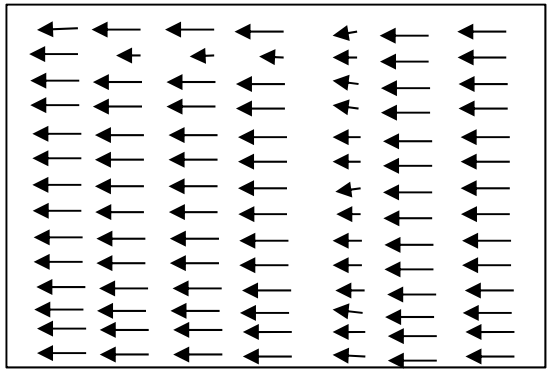


Course Contents

- **28 Nov**: Optical Flow Estimation

Frame 0

Frame 1



Motion Field

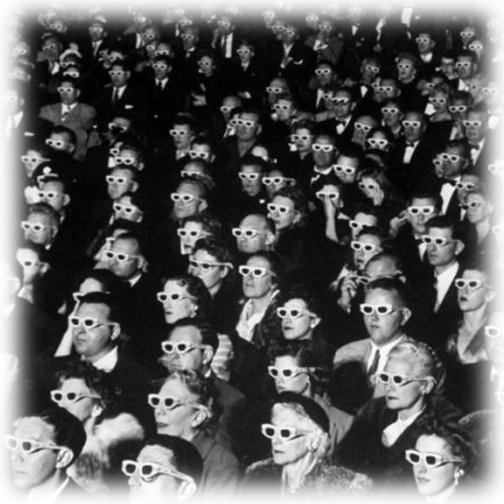
Course Contents

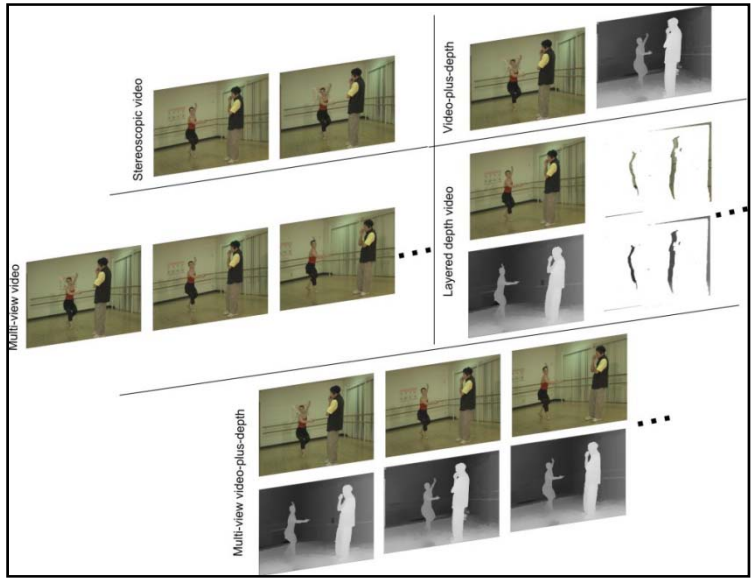
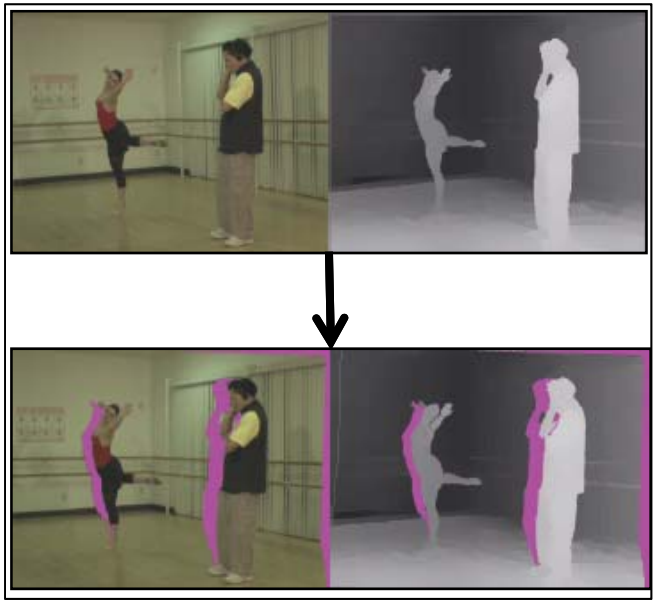
- **5 Dec:** 3D Scene Reconstruction for 3D Film/TV Applications

3D View

Course Contents

- **12 Dec:** 3D Movie Making



Course Contents

- **9 Jan:** 3D Video Representation