

Team Introduction and Course Organization

Computer Vision

Summer Semester 2023



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- **Where**

- Hörsaal 4 – H4, Martensstraße 1
- <https://www.fau.tv/course/id/3455>

- **Who**

- ME, INF, ICT, CME, AI and other study programs

- **What**

- Computer Vision – the basics

- **When**

- Thursday 16:15-17:45

- **How**

- In Person, Stream, Recording
- (no guarantee on stream and recording)
- Recordings of past year as backup

- **Language**

- English

- **Where (asynchronous)**
 - Teams (link on studon)
- **Where (synchronous)**
 - Tuesday 10-12
 - 0.01-142-CIP Martenstraße 5a (Huber)
 - Wednesday 8-10
 - 0.01-142-CIP Martenstraße 5a (Huber)
- **What**
 - 5 excercises
- **How**
 - No grading
 - No submission
 - Questions on exercises in the exam
 - Tutors are available for questions
 - Questions only on current exercise
 - Please support each other on teams!
- **Language**
 - English

- **Where**
 - to be announced
- **Who**
 - everyone who registers for the exam
- **What**
 - Questions cover all lectures and exercises
 - Mock questions will be provided
- **When**
 - to be announced
- **How**
 - written
- **Language**
 - English

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- **Where**
 - Scheduled centrally
 - **Who**
 - everyone who registers for the exam
 - **What**
 - Questions cover all lectures and exercises
 - Mock questions will be provided
 - **When**
 - Scheduled centrally
 - **How**
 - written
 - **Language**
 - English

- **Demos**

- The last lecture slots will be filled with demos on recent advances in computer vision from from our labs

- **Invited Talk**

- André Aichert (Siemens Healthineers, FAU alumni) will hold a guest lecture on epipolar geometry



Organization - Schedule

Might be outdated: up to date schedule on studon!

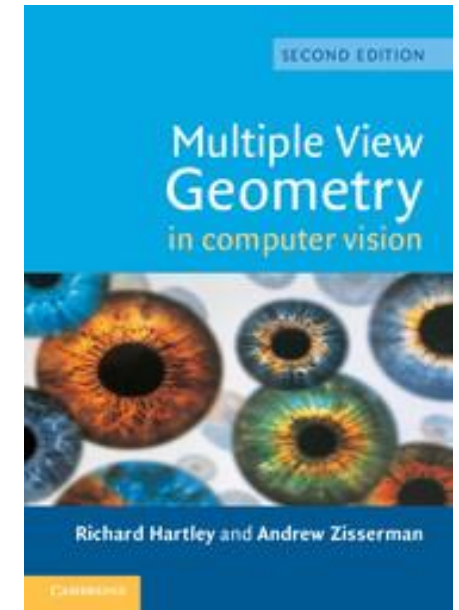
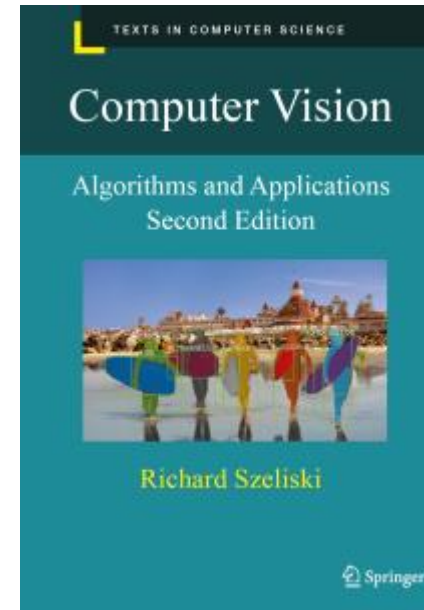
Week	Date	Lecture Topic	Presenter	Exercise Release
1	20-Apr	Course Organisation and Introduction to Computer Vision	BE/TW	Intro
2	27-Apr	Image and Light	TW	
3	4-May	Thinking in Frequency	TW	
4	11-May	Edges and Corners	AM	Ex 1 Feature Detection
5	18-May	— <i>bank holiday</i> —		
6	25-May	Features / Cameras / Optics / Perspective	AM	
7	1-Jun	Camera Calibration	AM	Ex 2 Panorama
8	8-Jun	— <i>bank holiday</i> —		
9	15-Jun	Epipolar Geometry	AA	Ex 3 Structure from Motion
10	22-Jun	Dense Motion Estimation	BE	
11	29-Jun	Stereo Vision	BE	Ex 4 Optical Flow
12	6-Jul	Structured Light	BE	
13	13-Jul	Surface Reconstruction	TW	Ex 5 Stereo Vision
14	20-Jul	Demo / Guest Lecture	TBD	

Central point of everything:

- a. Lecture Videos and Slides
- b. Exercises
- c. rocket.chat/Teams for information/discussions

Reference Books

1. *Richard Szeliski: Computer vision: algorithms and applications*
<http://szeliski.org/Book/>



2. *Richard Hartley and Andrew Zisserman: Multiple View Geometry in Computer Vision*

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- **ECTS**
 - 5 (combined exam for excercises and lecture)
 - **Distribution of Marks**
 - Final grade from written exam

- **General**

- Consult those introduction slides
- Ask question on teams
 - Whoever is first can respond
 - Please help each other
- Please don't write us an email

- **Personal**

- Email to Prof. Egger, Maier & Weyrich (CC!)