



Selected Chapters organized by

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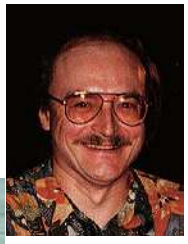
Inst. 193/3 Visual Computing and Human-Centered Technology
Pattern Recognition and Image Processing Group








Topic SS 2021: Pyramids and Slopes

Relating critical point with slopes in surfaces

Optimize contraction kernels in plateaus

Combining RGB-pyramids

Combining slices of 3D images

When? and Where?

183.151 AK**BV** SS 2021

Lectures are online/by email.

Zoom meetings on selected dates

Student Registration: by TISS

Working Mode SS 2021

Each lecture unit (except begin) will be subdivided into three parts:

1. Summary of discussion of last lecture unit.
2. Presentation of new book chapters and/or related scientific articles.
3. Discussion introduced and lead by opponent.

Several lecture units can be combined in a block.

Topics SS 2021

proposed Dates	Speaker	Opponent	report	Topic (2+3)	page
9. 3.	Walter Kropatsch			Introduction	
13. 4.	13-17				
27. 4.	13-17				
11. 5.					
8. 6.					
15. 6.					
22. 6.					

Your tasks:

1. Select a topic and present it;
2. write a summary of your selected lecture topic;
3. as opponent: prepare a few initial critical statements (1-2 slides);
4. write a short report about a discussion;
5. actively participate in the discussion.

Reports, presentations and slides are the basis for evaluation.

Let's enjoy several interesting topics together!

Participants SS 2021

Mat.Nb.	name	first name	email

Selected Topics SS 2021

1.
2.
3.

Selections SS 2021

name	when	topic	opp.	minutes
		1	2	3
		2	3	1
		3	1	2

Topics in the Past

Selected Chapters started in 2002

SS 2002 AKdTI5: Walter Kropatsch: Anwendungen von Bildpyramiden

Selected Chapters 2003-2008

SS 2003(BV): Walter Kropatsch: BILDPYRAMIDEN + GRAPHEN

WS 2003(ME): P. Lienhardt (Poitiers): Fundamentals of Topology-based Geometric Modeling.

SS 2004(BV): Wolfgang Förstner (Bonn): Projektive Geometrie

WS 2004(ME): Walter Kropatsch: Cognitive Vision

SS 2005(BV): Walter Kropatsch: Repräsentationen in der Bildanalyse

WS 2005(ME): Nicu Sebe (Amsterdam): Multimedia Information Systems

WS 2006(ME): Samuel Peltier (Poitiers): Homology Groups (canceled)

SS 2007(BV): Eric Andres (Poitiers): discrete Geometry

WS 2007(ME): Walter Kropatsch: GRAPHS + Pyramids

SS 2008(BV): R. Gonzalez-Diaz (Sevilla): Extracting Topological Information of 3D Digital Imag

WS 2008(ME): Kropatsch, Helena Molina (Sevilla): Pyramids + Topology

Selected Chapters 2009-2013

SS 2009(BV): Pedro Real Jurado (Sevilla): Computing "holes" of 3D digital objects

WS 2009(ME): Luc Brun (Caen): Partition encoding: Geometrical and topological challenges

SS 2010(BV): Walter Kropatsch: We are building a Topological Pyramid
and Rocio Gonzalez-Diaz (Sevilla): (Co-)Homology Groups of 3D binary images

WS 2010(ME): Kropatsch, Vucini, Chao Chen: Pyramids + Topology

SS 2011(BV): Horst Bunke (Bern): Basic Methodology and Recent Developments in Structural P

WS 2011(ME): Claudia Landi (Reggio Emilia, I): Shape-from-function methods

SS 2012(BV): Max Göbel and Walter Kropatsch: Object Detection/Recognition from 2D images

WS 2012(ME): KSFu Lecture Series: Pavlidis, Aggarwal, Huang, Kittler, Jain, Bunke

SS 2013(BV): Walter Kropatsch, GbR2013: Graph-based Representations in PR

WS 2013(ME): KSFu Lecture Series: Pavlidis, Aggarwal, Huang, Kittler, Jain, Bunke, Chellappa

Selected Chapters 2014–2019

SS 2014(BV): W. Kropatsch, Thomas Druml (VetMed), Wolfgang Busch (GMI): Image-based Ph

WS 2014(ME): Walter Kropatsch: Selection of KSFu and BMVC Lectures

SS 2015(BV): Laszlo Nyul: Fuzzy techniques in image processing

WS 2015(ME): Walter Kropatsch, Nicole Artner, Ines Janusch, Aysylu Gabdulkhakova: Selectio topics 2015/16

SS 2016(BV): Walter Kropatsch: Graphs: Matching and Distance

WS 2016(ME): Walter Kropatsch, Ines Janusch: Skeletonization and its Applications

SS 2017(BV): Raphael Barth, Ines Janusch, Walter Kropatsch: 360^0 Vision

WS 2017(ME): Walter Kropatsch: Recognizing Plants & Animals

SS 2018(BV): Walter Kropatsch: Hyperbolic MAT & Warping with space filling curves

WS 2019(ME): Walter Kropatsch: Border propagation for slope decompositions and NN and dat