Lecture SS 2018

Multimedia
§0 Introduction

Prof. Dr. Georg Umlauf

Who am I?

Prof. Dr. Georg Umlauf

Institute for optical systems

− Computer graphics, geometric algorithms −

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- Tel.: 07531 / 206–702
- Office hours: Whenever the door is open…
- Email: `umlauf@htwg-konstanz.de`
- URL: `www-home.htwg-konstanz.de/~umlauf`

Who are you?

Please, fill out the list…

Lecture

Lecture (2 SWS)

- Monday: 14:00 – 15:30
- Room: F 023

Practical Assignments (2 SWS)

- Monday :   15:45 – 17:15
- Room: F 033

Script

Script

- Chapter-wise online from within the HTWG-VPN at

$$\texttt{http://www-home.htwg-konstanz.de/}$$
$$\texttt{~umlauf/Intern/Multimedia18.html}$$

Examination

Un-graded certificates (Schein)

- Successful, individual solution of practical assignments.

Graded exam

- Oral exam with individual appointment within examination period.

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Contents

§0. Introduction

§1. Basics of multimedia

§2. Text coding

§3. Basics of data compression

§4. Lossless compression

§5. Data reduction

§6. De-correlation

§7. Audio compression

§8. Image compression

§9. Video compression

Preliminary deadlines:

Two practical assignments
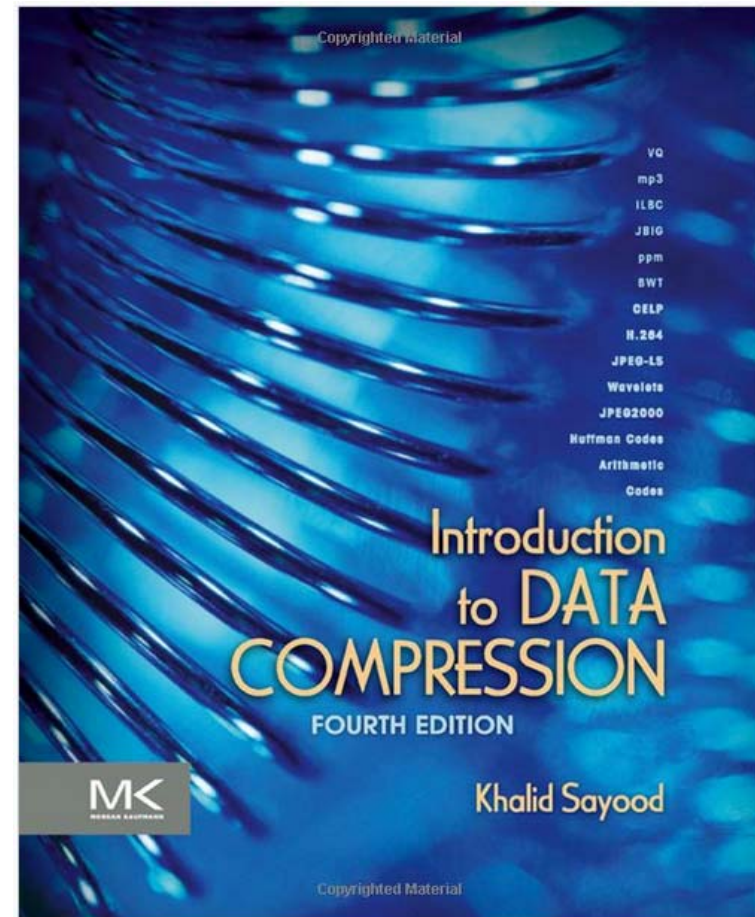
16.04.18 and 07.05.18

Practical assignment 04.06.18

Practical assignment 25.06.18

Literature

- Khalid Sayood: Introduction to Data Compression, Morgan Kaufman, 4th edition, 2012.
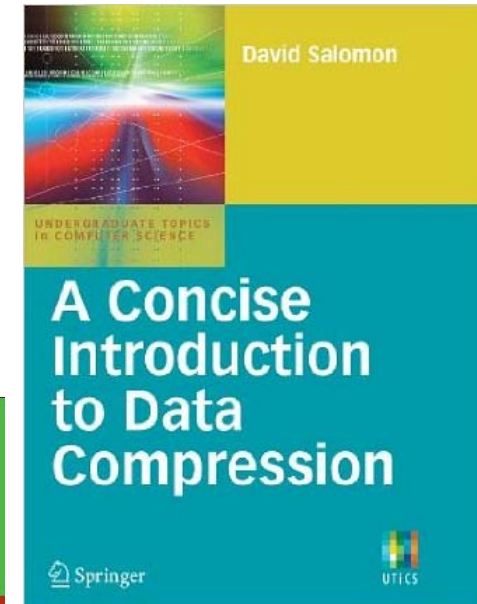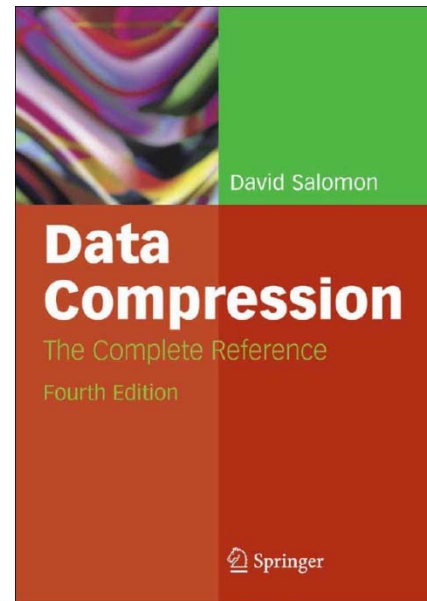

Khalid Sayood

Literature

- David Salomon: A Concise Introduction to Data Compression, Springer, 2008.

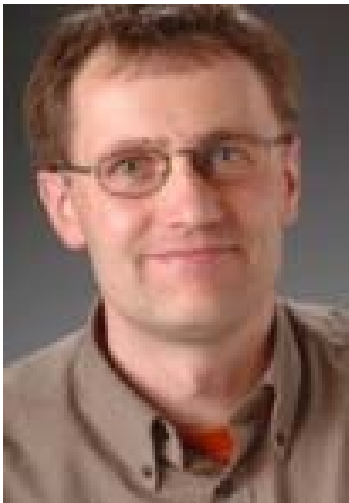- David Salomon: Data Compression – The Complete Reference, Springer, 2007.

David Salomon

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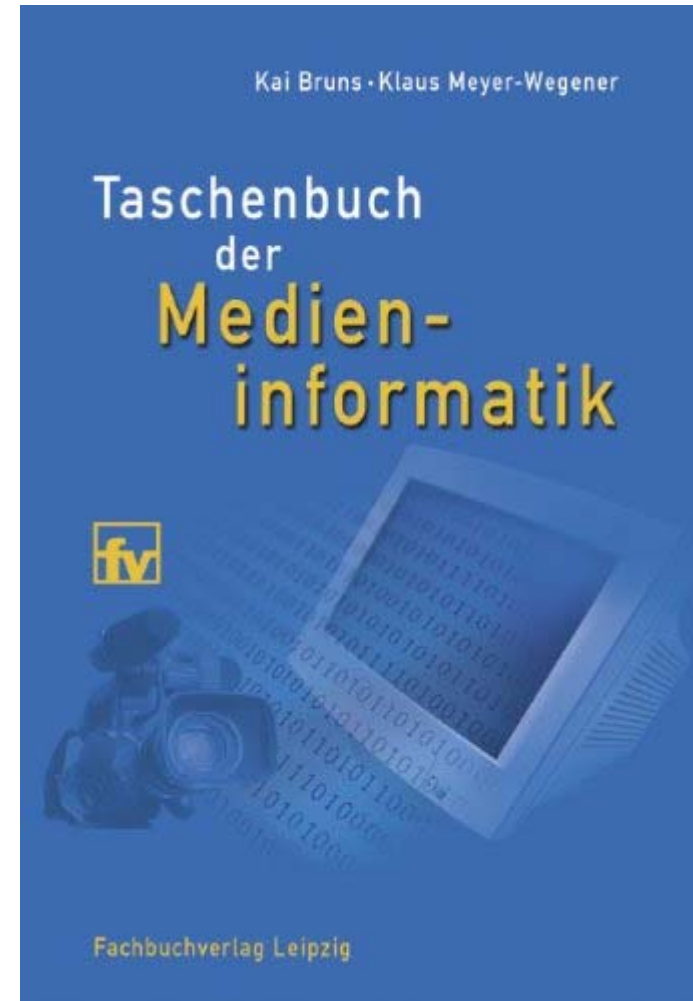University of Applied Sciences

Literature

- Kai Bruns, Klaus Meyer-Wegener: Taschenbuch der Medieninformatik, Fachbuchverlag Leipzig, 2005.

Kai Bruns, HS DD

Klaus Meyer-Wegener, Uni Erlangen/Nürnberg

Literature

- Ralf Steinmetz: Multimedia-Technologie, Springer Verlag, 2014.

Ralf Steinmetz, TU DA

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