

Formal Concept Analysis

Welcome and Organizational Issues

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Organization

Lectures and Exercises

lecture Monday, 11:10 – 12:40, room APB E005

hands-on exercise Monday, 9:20 – 10:50, room APB E005

Course Web Page

[https://iccl.inf.tu-dresden.de/web/Introduction_to_Formal_Concept_Analysis_\(WS2023\)](https://iccl.inf.tu-dresden.de/web/Introduction_to_Formal_Concept_Analysis_(WS2023))

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Organization

hands-on exercise means

- *autonomous work* on the practice sheet in small teams of 3-4 students, under supervision
- *no general repetition* of lecture material
- *no demonstration* of the sample solution (will be provided later)

necessary for that is

- making notes during the lecture
- performing autonomous follow-up course work *before* the exercise
- bringing material and your notes to the exercise
- developing own activity

Organization

Why this exercise concept?

- active development of the lecture material is more effective
- discovering relationships in the material
- learning structured thinking and autonomous working
- learning team work
- learning to explain things
- exercise for the exams ;-)
- *You have finished your study of . . . Your personal strengths include pro-activity and team work, you are communicative and willing to cooperate. (typical job advertisement)*

Overview

- Organization
- ① Contexts, Concepts, and Concept Lattices
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 - ② Multi-valued Contexts and Conceptual Scales
- II Closure Systems and Implications
 - ③ Closure Systems
 - ④ Implications
- III Knowledge Discovery
 - ⑤ Attribute Exploration
- IV Extensions of FCA
 - ⑥ Triadic Formal Concept Analysis