



HISOLUTIONS

# Von der Standardisierung der Informationssicherheit zur Automatisierung der Security-Standards

DFN-Konferenz

4.2.2022

David Fuhr







David Fuhr  
Head of Research & Innovation, HiSolutions AG

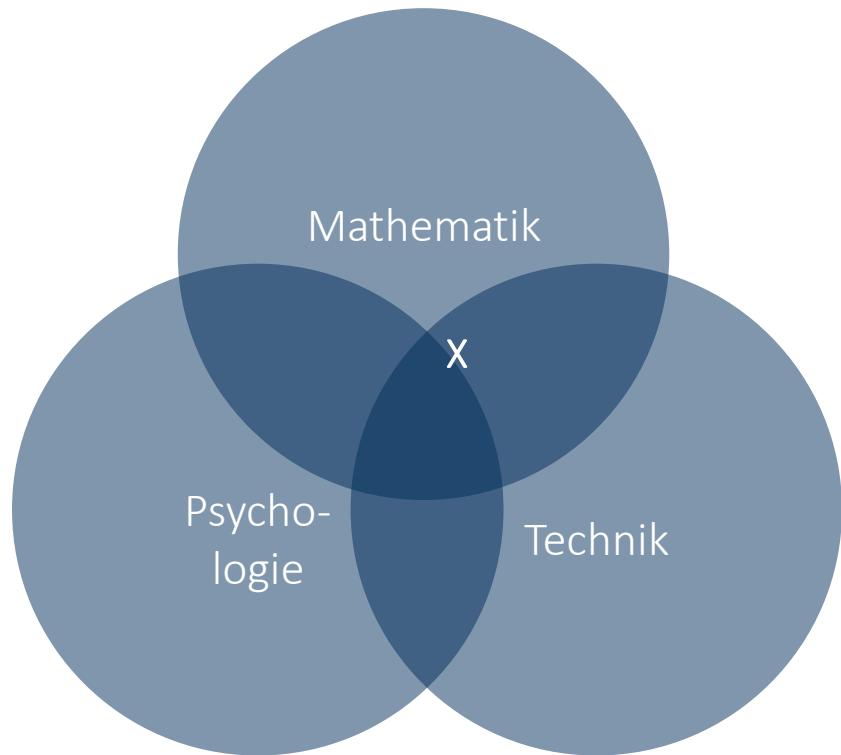




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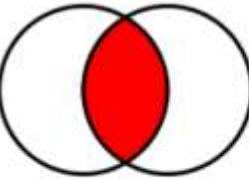
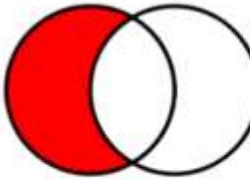
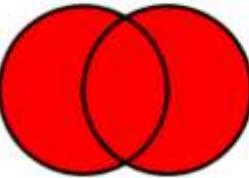
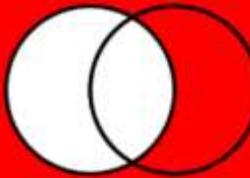
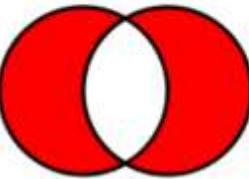
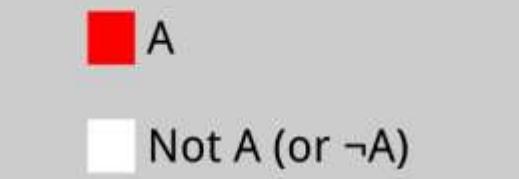
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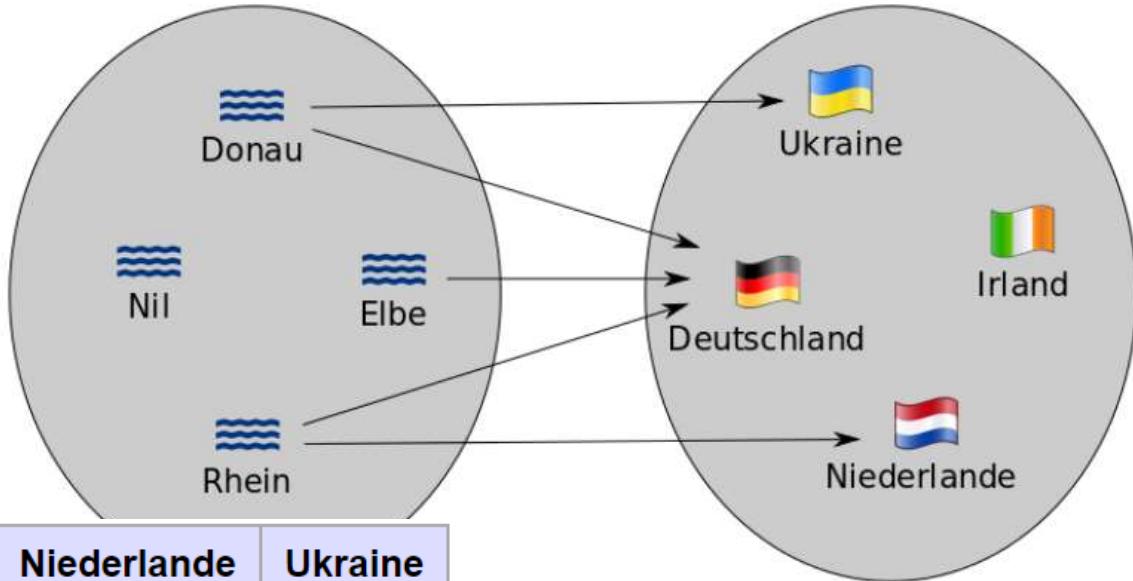




# Mengen

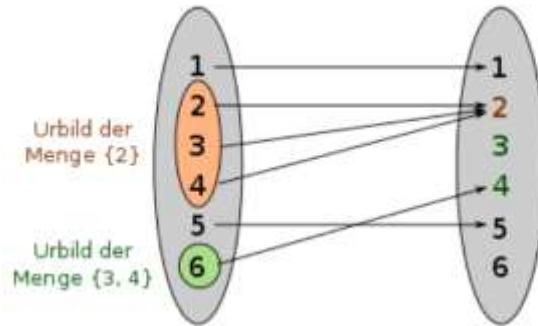
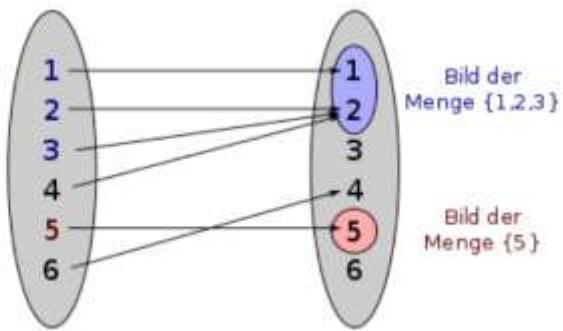
	$A = B \cap C$		$A = B \setminus C$
	$A = B \cup C$		$A = \neg B$
	$A = B \Delta C$		$A$ Not A (or $\neg A$ )

# Relationen

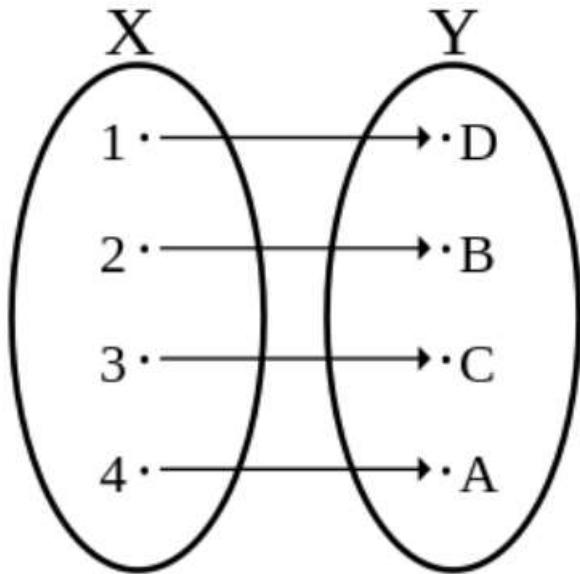


	Irland	Deutschland	Nederlande	Ukraine
Donau		X		X
Elbe		X		
Nil				
Rhein		X	X	

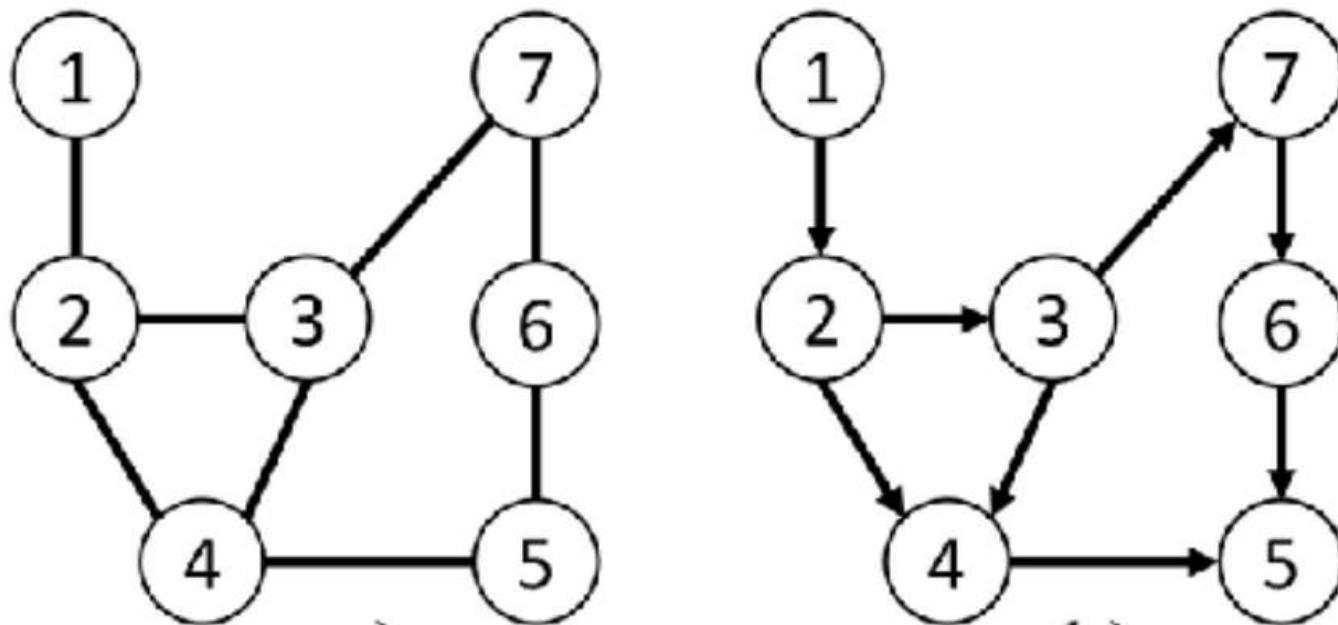
# Abbildungen/Funktionen



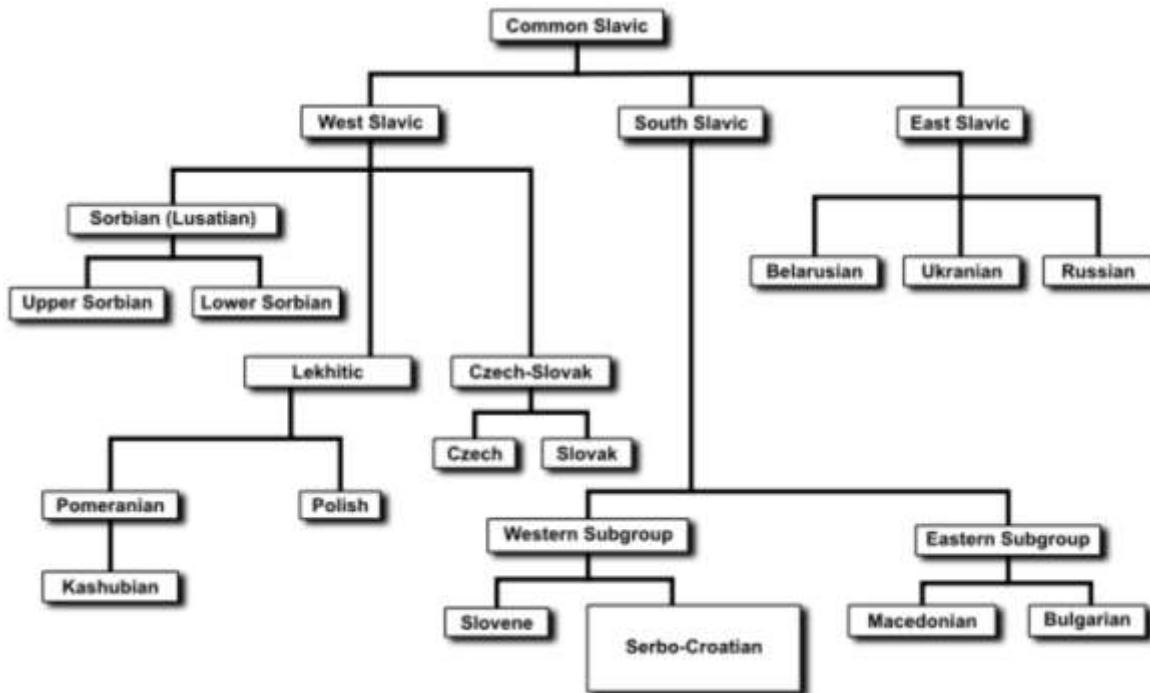
## Abzählen + Ordnung



## Graphen



# Bäume



DEUTSCHE NORM

Juni 2017

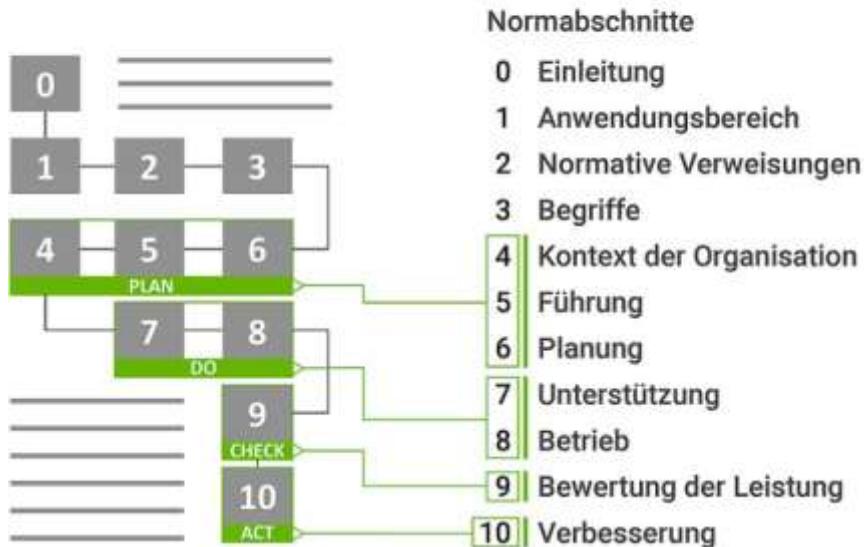
# DIN EN ISO/IEC 27001

DIN



„PDCA“

## HIGH LEVEL STRUCTURE DIN SPEC 36601





# IT-Grundschutz-Kompendium

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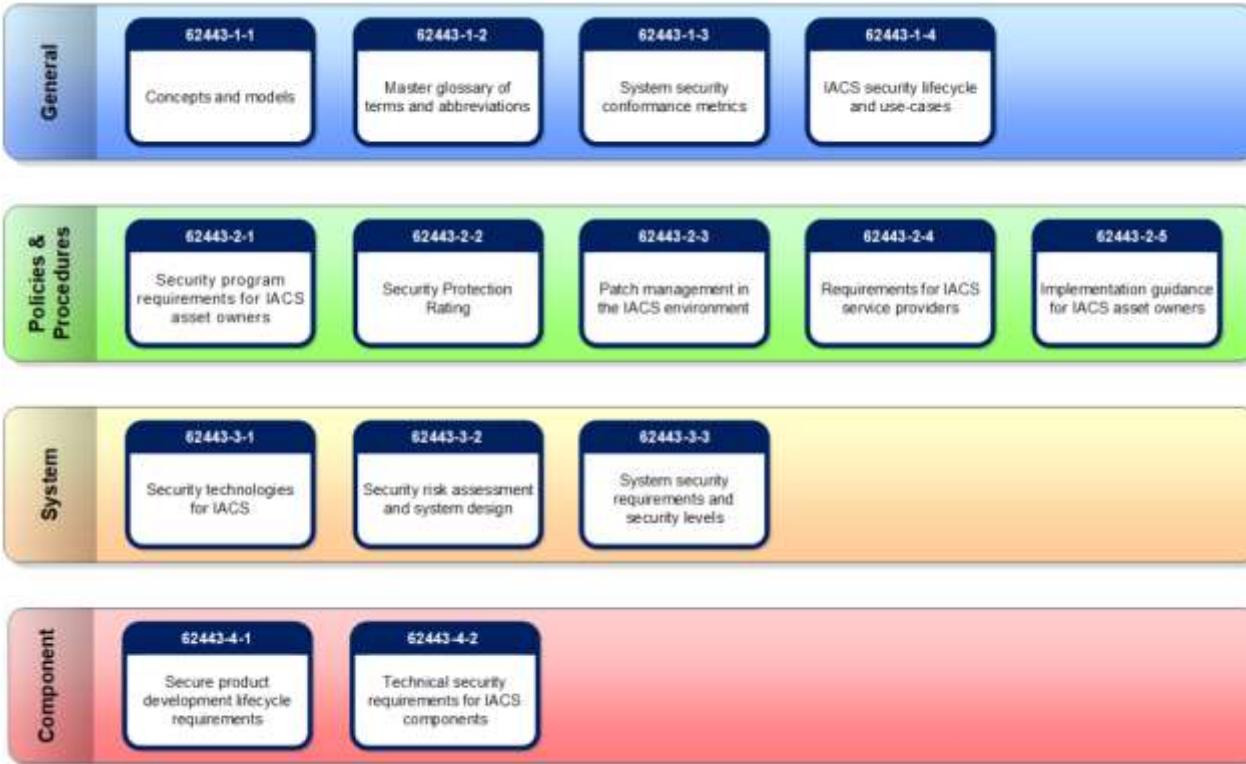


## XML-Version des IT-Grundschatz-Kompendiums (Edition 2022)

Datum 01.02.2022

XML-Version der Edition 2022 des IT-Grundschatz-Kompendiums zur Nutzung.

# IEC 62443



# Security Levels

- |             |   |
|-------------|---|
| <b>SL 1</b> | Protection against <b>casual or coincidental</b> violation  |
| <b>SL 2</b> | Protection against <b>intentional violation</b> using <b>simple means</b> with low resources, generic skills and low motivation                         |
| <b>SL 3</b> | Protection against intentional violation using <b>sophisticated means</b> with <b>moderate resources</b> , IACS specific skills and moderate motivation |
| <b>SL 4</b> | Protection against intentional violation using sophisticated means with <b>extended resources</b> , IACS specific skills and high motivation            |

SRs and REs	SL 1	SL 2	SL 3	SL 4
<b>FR 1 – Identification and authentication control (IAC)</b>				
SR 1.1 – Human user identification and authentication	5.3	✓	✓	✓
SR 1.1 RE 1 – Unique identification and authentication	5.3.3.1		✓	✓
SR 1.1 RE 2 – Multifactor authentication for untrusted networks	5.3.3.2			✓
SR 1.1 RE 3 – Multifactor authentication for all networks	5.3.3.3			✓
SR 1.2 – Software process and device identification and authentication	5.4		✓	✓
SR 1.2 RE 1 – Unique identification and authentication	5.4.3.1			✓
SR 1.3 – Account management	5.5	✓	✓	✓
SR 1.3 RE 1 – Unified account management	5.5.3.1			✓
SR 1.4 – Identifier management	5.6	✓	✓	✓
SR 1.5 – Authenticator management	5.7	✓	✓	✓
SR 1.5 RE 1 – Hardware security for software process identity credentials	5.7.3.1			✓
SR 1.6 – Wireless access management	5.8	✓	✓	✓
SR 1.6 RE 1 – Unique identification and authentication	5.8.3.1		✓	✓
SR 1.7 – Strength of password-based authentication	5.9	✓	✓	✓
SR 1.7 RE 1 – Password generation and lifetime restrictions for human users	5.9.3.1			✓



IEC 62443-2-4



Everything Is A Database

Photo by [Jan Antonin Kolar](#) on [Unsplash](#)

The search results for "Relational Database Model" are displayed across various sections of the slide.

**Top Left:** Database Theory and Application by Ramez Elmasri, Abouelnaga, and Bala Krishnamurthy. Springer, 2007. ISBN: 978-0387342764. Price: 118.20 EUR.

**Top Middle Left:** Database Theory and Application by Ramez Elmasri. Pearson Higher Education, 2012. ISBN: 978-0132891641. Price: 118.20 EUR. Published at 2011-01-01.

**Top Middle Right:** Database Theory - ICDT 2001. Lecture Notes in Computer Science 2001. Springer.

**Top Right:** TECHNISCHE UNIVERSITÄT DRESDEN logo.

**Second Row Left:** Database Theory and Application by Ramez Elmasri, Abouelnaga, and Bala Krishnamurthy. Springer, 2007. ISBN: 978-0387342764. Price: 118.20 EUR.

**Second Row Middle Left:** Database Theory and Application by Ramez Elmasri. Pearson Higher Education, 2012. ISBN: 978-0132891641. Price: 118.20 EUR.

**Second Row Middle Right:** Database Theory Each Table in a ... pinned to Pinterest by pt.

**Second Row Far Right:** Database Theory - Lecture 1. TU Dresden, 4 April 2019.

**Third Row Left:** Database Theory and Application by Ramez Elmasri, Abouelnaga, and Bala Krishnamurthy. Springer, 2007. ISBN: 978-0387342764. Price: 118.20 EUR.

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**Third Row Far Right:** Database Theory - ICDT 2001. Lecture Notes in Computer Science 2001. Springer.

**Fourth Row Left:** Database Theory - ICDT 2001. Lecture Notes in Computer Science 2001. Springer.

**Fourth Row Middle Left:** StudentId Name CourseId

S1	Anne	C1
S1	Anne	C2
S2	Boris	C1
S3	Cindy	C3

**Fourth Row Middle Right:** Database schema - Wikipedia en.wikipedia.org

**Fourth Row Far Right:** An Introduction to Relational Database Theory bookboon.com

**Fifth Row Left:** Database Theory - ICDT 2001. Lecture Notes in Computer Science 2001. Springer.

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**Sixth Row Left:** Database Theory and Application by Ramez Elmasri, Abouelnaga, and Bala Krishnamurthy. Springer, 2007. ISBN: 978-0387342764. Price: 118.20 EUR.

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**Sixth Row Middle Right:** Algebraic Structures in Automata and Databases Theory by B. I. Plotkin, L. J. Greenberg, & A. Grinberg. Birkhäuser, 2006. ISBN: 978-3764373428.

**Sixth Row Far Right:** Relational Database Theory ... mobile.databasejournal.com

**Bottom Left:** Relational database model

**Bottom Middle Left:** Database Theory and Application by Ramez Elmasri, Abouelnaga, and Bala Krishnamurthy. Springer, 2007. ISBN: 978-0387342764. Price: 118.20 EUR.

**Bottom Middle Right:** Relational databases example

**Bottom Far Right:** Relational database theory bookkooker.de In st...

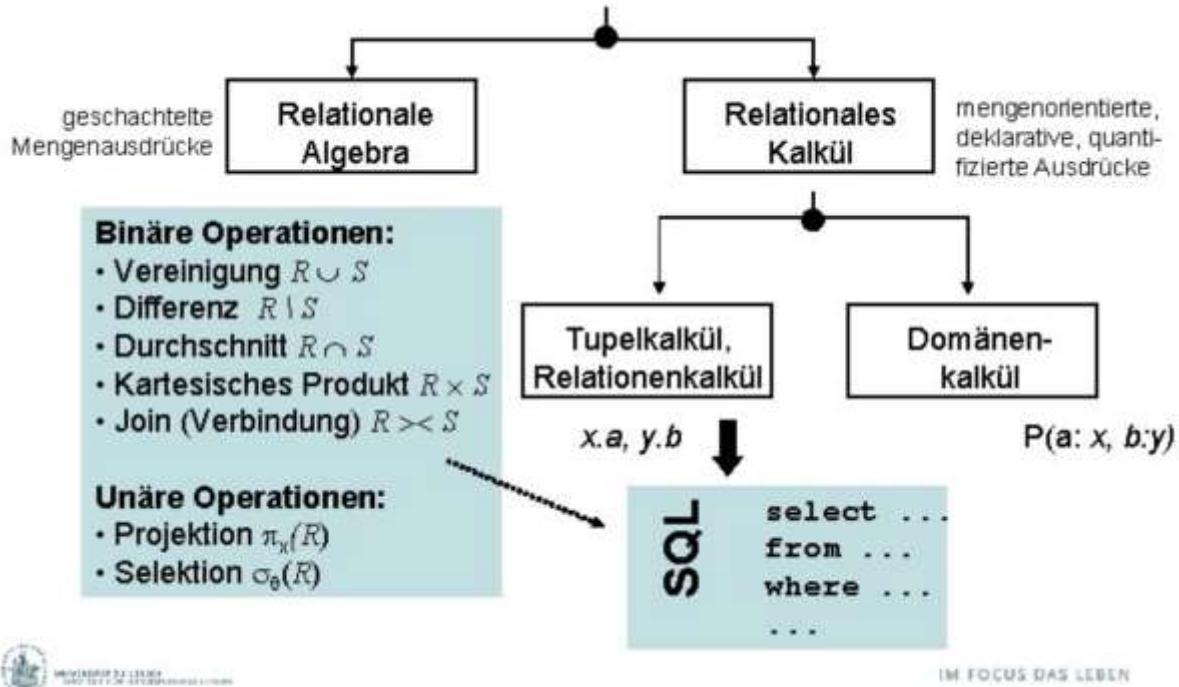
**Right Column Top:** DATABASE THEORY  
Lecture 1: Introduction / Relational data models  
Author: R. Elmasri  
TU Dresden, 4 April 2019

**Right Column Middle:** Perspectives on database ... dl.acm.org

**Right Column Far Right:** What is Database Theory? | USF Health ... usfhealthonline.com

**Right Column Bottom:** Database Theory - Lecture 1. icci.inf.tu-dresden.de

# Relationale Algebren und Kalküle



David Fuhr  
fuhr@hisolutions.com  
[www.linkedin.com/in/davidfuhr/](https://www.linkedin.com/in/davidfuhr/)  
[twitter.com/0xdhf](https://twitter.com/0xdhf)



Schloßstraße 1 | 12163 Berlin

[info@hisolutions.com](mailto:info@hisolutions.com) | +49 30 533 289 0

[www.hisolutions.com](http://www.hisolutions.com)