# SKB Research Library - Books

Sven van der Meer

# Table of Contents

# 1600

**Isaac Newton**: *Regulae Philosophandi* or *Philosophiæ Naturalis Principia Mathematica*, 1687

- Author: Isaac Newton
- Reasons to read: scientific principles only work within a given set of bounds, nature is essentially simple, similar effects must be assigned to the same cause
- Links: Wikipedia, Project Gutenberg: Latin, English by Ian Bruce: online skb: yaml src

# 1700

**Gottfried Leibniz**: *Monadology* or *Lehrsätze über die Monadologie*, 1714

- Author: Gottfried Leibniz
- Published: 1714 (French), 1720 (German)
- Reasons to read: the first (that we know of) and grandest attempt to conceive of the world as as a system, in particular as a system of "reflections" in which the state of every element recursively mirrors the state of the whole
- Links: Wikipedia, Goodreads, English: by Robert Latta, German: Gutenberg Projekt skb: yaml src

# 1800

**Edwin A. Abbott**: *Flatland: A Romance of Many Dimensions*, 1884

- Author: Edwin A. Abbott
- Reasons to read: the world limited by dimensions, also a social critic
- Publisher: Seeley & Co. of London
- Links: Wikipedia, Goodreads, LaTeX by Ivesvdf, Internet Archive, Gutenberg, a movie, The Film: youtube skb: yaml src

**Gottlieb Frege**: *Grundgesetze der Arithmetik or Basic Laws of Arithmetic*, 1893

- Author: Gottlieb Frege
- Reasons to read: the world limited by dimensions, also a social critic
- Publisher: Seeley & Co. of London, 1893 (Volume I), 1903 (Volume II)
- Links: Goodreads: en, Goodreads: de, PDF: de skb: yaml src

# 1910

**Bertrant Russel**: *Introduction to Mathematical Philosophy*, 1919

- Author: Bertrant Russel
- Reasons to read: introduction to mathematics and the more fundamental "Principia Mathematica"
- Publisher: George Allen & Unwin, Ltd, London
- Links: Wikipedia, Goodreads, PDF: old typeset, Online at UMass skb: yaml src

# 1920

**Ludwig Wittgenstein**: *Tractatus Logico-Philosophicus*, 1922

- Author: Ludwig Wittgenstein
- Published: 1921 (German, *Logisch-Philosophische Abhandlung*), 1922 (English)
- Reasons to read: picture theory, logical atomism, distinction between saying and showing, Wittgentstein's ladder, proposition 7
- Publisher: Kegan Paul, Trench, Trubner & CO
- Links: Wikipedia, Goodreads, eBooks at Gutenberg Project, eBooks at UMass skb: yaml src

# 1930

**Ludwig Fleck**: *Gensis and Development of a Scientific Fact*, 1935

- Author: Ludwig Fleck
- Published: 1935 (German, *Entstehung und Entwicklung einer wissenschaftlichen Tatsache*), 1979 (English)
- Reasons to read: philosophy of science, social process of science
- Links: Wikipedia, Goodreads skb: yaml src

# 1950

**W. Ross Ashby**: *An Introduction to Cybernetics*, 1956

- Author: W. Ross Ashby
- Reasons to read: cybernetics into, Law of Requisite Variety
- Publisher: John Wiley & Sons
- Links: Goodreads, pdf: original typeset, pdf: new typeset, discussion on requisite variety, WikiQoutes skb: yaml src

**Theodor Seuss Geisel**: *The Sneetches and Other Stories*, 1953

- Author: Theodor Seuss Geisel
- also known as Dr. Seuss
- Publisher: Redbook (magazines), Random House (book)
- Reasons to read: Ms McCave "too many Daves" as metaphor for too many things with the same name
- Links: Wikipedia, Goodreads, Wikipedia: Too Many Dave's, Poem, Animation: youtube skb: yaml src

**Joseph Needham**: *Science and Civilisation in China*, 1954

- Author: Joseph Needham
- Reasons to read: the West was only one to make the leap from artisan to science
- Publisher: Cambridge University Press
- Links: Wikipedia skb: yaml src

**Marie Neurath**: *How Machines Work*, 1954

- Author: Marie Neurath
- Reasons to read: the most simple, yet expressive, introduction on machines :)
- Publisher: Max Parrsih, London
- Links: gallery with 3 pages, all pages skb: yaml src

**Karl Popper**: *The Logic of Scientific Discovery*, 1959

- Author: Karl Popper
- Published: 1934 (German, *Logik der Forschung*), 1959 (English)
- Publisher: Hutchinson & Co
- Reasons to read: "The first step is to state a hypothesis. To state a hypothesis, one must start with a theory to be invalidated", shows: you can never prove a theory correct; you can only invalidate it
- Links: Wikipedia, Goodreads, Online: English, PDF: English skb: yaml src

# 1960

**Thomas Kuhn**: *Structure of Scientific Revolutions*, 1962

- Author: Thomas Kuhn
- Reasons to read: philosophy of science
- Publisher: University of Chicago Press
- Links: Wikipedia, Goodreads skb: yaml src

**Norbert Wiener**: *Cybernetic OR Control and Communication in the Animal and the Machine*, 1965

- Author: Norbert Wiener
- Reasons to read: the standard work on cybernetics (with definition) and control
- Publisher: MIT Press, Cambridge, Massachusetts
- Links: Wikipedia, Goodreads, PDF: original typeset skb: yaml src

# 1970

**Christopher Alexander**: *A Pattern Language*, 1977

- Author: Christopher Alexander
- Reasons to read: (most) influential book on patterns, laid foundation for software patterns
- Publisher: Oxford University Press
- Links: Wikipedia, Goodreads skb: yaml src

**Christopher Alexander**: *The Timeless Way of Building*, 1979

- Author: Christopher Alexander
- Reasons to read: "how to think about X", a new theory of architecture (and design in general) that relies on the understanding and configuration of design patterns
- Is actually the introduction to *A Pattern Language* by the same author, though published later
- Publisher: Oxford University Press
- Links: Wikipedia, Goodreads skb: yaml src

**Samuel C. Florman**: *The Existential Pleasures of Engineering*, 1976

- Author: Samuel C. Florman
- Reasons to read: to understand engineering, how engineers think and feel about their profession
- Links: Goodreads skb: yaml src

**Imre Lakatos**: *Proofs and Refutations*, 1976

- Author: Imre Lakatos
- Reasons to read: the way of thinking, “listen to the problem”
- Publisher: Cambridge University Press
- Links: Wikipedia, Goodreads skb: yaml src

**Robert MacArthur**: *Geographical Ecology: Patterns in the Distribution of Species*, 1972

- Author: Robert MacArthur
- Reasons to read: island of biogeography, "A field cannot consider itself a science until it can progress beyond natural history"
- Publisher: Vintage
- Links: Goodreads skb: yaml src

# 1980

**Brian Kernighan** et al.: *The C Programming Language*, 1988

- Authors: Brian Kernighan, Dennis Ritchie
- Reasons to read: the original C programming manual
- Publisher: Prentice-Hall
- Links: Wikipedia, Internet Archive skb: yaml src

**Humberto R. Maturana** et al.: *The Tree of Knowledge*, 1987

- Authors: Humberto R. Maturana, Francisco J. Valera
- Reasons to read: tbd
- Publisher: Shambhala, Boston & London
- Links: Goodreads, PDF skb: yaml src

# 1990

**Gerald Edelman**: *Bright Air Brilliant Fire*, 1992

- Author: Gerald Edelman
- Reasons to read: theory of Neural Darwinism feeds into Maturana quite nicely, the application of Edelman in Sacks' Seeing Voices
- Publisher: Basic Books
- Links: Goodreads skb: yaml src

**Stuart Kaufmann**: *The Origins of Order*, 1993

- Author: Stuart Kaufmann * Reasons to read: works out the math and science in detail and shows that life is virtually inevitable, scientific version of "At home in the universe"
- Publisher: Oxford University Press, USA
- Links: Goodreads skb: yaml src

**Stuart Kaufmann**: *At Home in the Universe*, 1996

- Author: Stuart Kaufmann
- Reasons to read: works out the math and science in detail and shows that life is virtually inevitable, Scientific American (popular science magazine) version of "The origins of order"
- Publisher: Oxford University Press, USA
- Links: Goodreads skb: yaml src

**Leslie Lamport**: *LaTeX: A Document Preparation System*, 1994

- Author: Leslie Lamport
- Reasons to read: the original LaTeX manual
- Publisher: Addison-Wesley Professional; 2 edition (July 10, 1994)
- Links: Homepage skb: yaml src

**Oliver Sacks**: *The Man Who Mistook His Wife for a Hat*, 1998

- Author: Oliver Sacks
- Reasons to read: aberrations of the human mind, contribute to Maturana's view
- Publisher: Touchstone
- Links: Goodreads skb: yaml src

# 2000

**John Day**: *Patterns in Network Architecture: A Return to Fundamentals*, 2007

- Author: John Day
- Reasons to read: fundamental patterns for network architecure, historic context, annectodal context
- Publisher: Pearson Edition
- Links: Goodreads skb: yaml src

**Stephen Jay Gould**: *The Richness of Life: The Essential Stephen Jay Gould*, 2006

- Author: Stephen Jay Gould
- Reasons to read: wrote a monthly article for Natural History on evolution, the collections of his articles are a good primer in how stochastic processes work in the large
- Publisher: Vintage
- Links: Goodreads skb: yaml src

**Ronald Mak**: *Principles for Successful Enterprise Systems - 20 Lessons Learned from NASA's Mars Exploration Rover Mission*, 2006

- Author: Ronald Mak
- Reasons to read: (practical) middleware architect's point of view principles for software development
- Publisher: Wiley Publishing
- Links: Goodreads, PDF Presentation skb: yaml src

**Terence Parr**: *The definitive ANTLR Reference - Building Domain-specific Languages*, 2007

- Author: Terence Parr
- Reasons to read: detailed guide on how to build parsers and compilers, effectively creating DSLs, using ANTLR
- Publisher: The Pragmatic Programmers
- Links: PragProg skb: yaml src

**Oliver Sacks**: *Seeing Voices*, 2000

- Author: Oliver Sacks
- Reasons to read: aberrations of the human mind, contribute to Maturana's view
- Publisher: Vintage
- Links: Goodreads skb: yaml src

**Lee Smolin**: *The Trouble with Physics*, 2006

- Author: Lee Smolin
- Reasons to read: "groupthink" anti pattern, role of controversy and disagreement in the progress of science, professionalization has lead to selecting for “master craftsmen” to the almost complete exclusion of “seers.”
- Publisher: Reed Business Information
- Links: Wikipedia, online skb: yaml src

**John C. Strassner**: *Policy-based Network Management: Solutions for the Next Generation*, 2004

- Author: John C. Strassner
- Publisher: Morgan Kaufman
- Links: ScienceDirect skb: yaml src

# 2010

**David Deutsch**: *The Beginning of Infinity*, 2011

- Author: David Deutsch
- Reasons to read: error is the normal state of our knowledge, good and bad philosophy
- Publisher: Viking
- Links: Wikipedia, Goodreads skb: yaml src

**Peter H. Feiler** et al.: *Model-based Engineering with AADL - An Introduction to SAE Architecture and Design Language*, 2012

- Authors: Peter H. Feiler, David P. Gluch
- Reasons to read: language for model-based engineering
- Publisher: Addison-Wesley (SEI Series in Software Engineering)
- Links: InformIT, AADL Homepage, Presentation 2010 PDF, Presentation 2014 PDF skb: yaml src

**Martin Fowler**: *Domain Specific Languages*, 2010

- Author: Martin Fowler
- Reasons to read: set of patterns for DSLs, detailed, with lots of examples
- Publisher: Addison-Wesley (Signature Series)
- Links: Homepage, DSL Pattern Catalog, DSL Guide skb: yaml src

**Kirk Knoernschild**: *Java Application Architecture - Modularity Patterns with Examples Using OSGi*, 2012

- Author: Kirk Knoernschild
- Reasons to read: think modular, with Java
- Publisher: Prentice Hall (Robert C. Martin Series)
- Links: Homepage, Goodreads skb: yaml src

**Terence Parr**: *Language Implementation Patterns*, 2010

- Author: Terence Parr
- Reasons to read: detailed guide on how to create your own domain-specific language and general programming languages
- Publisher: The Pragmatic Programmers
- Links: PragProg skb: yaml src

**Andrew L. Russell**: *Open Standards and the Digital Age: History, Ideology, and Networks*, 2014

- Author: Andrew L. Russell
- Reasons to read: history of networks and network standards
- Publisher: Cambridge University Press
- Links: Goodread, Google Books skb: yaml src

**Jason McC. Smith**: *Elemental Design Patterns*, 2012

- Author: Jason McC. Smith
- Reasons to read: scientific approach to software pattern (not OO-software-patterns), comprehensive graphical language
- Publisher: Addison-Wesley Professional
- Links: Goodreads, PDF: technical report, PDF: paper, PPTX skb: yaml src