

# Algorithm of the Week - Communicating the Fascination of Algorithms to the Public

Berthold Vöcking

Department of Computer Science  
RWTH Aachen University

ECSS, Zürich, October 2008

Since the year 2000 the German Federal Ministry of Higher Education and Research (BMBF) arranges a Science Year.

The year 2006 was devoted to informatics. It's motto was ...



... which should reflect the omnipresence of informatics in our society.

# Algorithm of the Week

A web project launched by the Fakultätentag Informatik at the occasion of the Informatics Year 2006.

## Idea:

Every week an algorithm should be presented in a colloquial language to the public.

## Objective:

Fascinate a non-expert auditorium by beautiful algorithmic ideas and concepts.

Especially reach for students in secondary school.

in December 2005, an **editorial board** consisting of seven members from different universities was set up:

- Helmut Alt, Berlin
- Martin Dietzfelbinger, Ilmenau
- Rüdiger Reischuk, Lübeck
- Christian Scheideler, München
- Berthold Vöcking, Aachen (chair)
- Heribert Vollmer, Hannover
- Dorothea Wagner, Karlsruhe

- in January 2006, a call for participation was sent out to all departments associated with the Fakultätentag
- from March to December, altogether 42 articles appeared, written by over 70 authors from different universities
- every article was reviewed by two members of the editorial board
- all articles were copy-edited by a team of six students from RWTH Aachen University
- the project was supported by a small BMBF grant

Articles explained algorithmic ideas by telling some story like

- How can one find a shortest path between two locations?
- How can one find an exit from a labyrinth?
- How should a group of pirates split a treasure map?

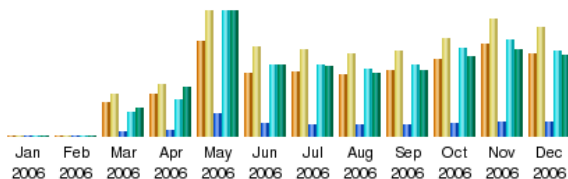
The first article about *binary search* appeared in March 2006 ...



In December 2006 the series ended after 42 weeks with a story about *cake cutting*.





















- Presentation within the Informatics Year 2006
  - entry point from the home page of the Science Year
  - radio interviews (Deutschlandfunk, Antenne Berlin)
  - reports in other media (newspapers, Heise Ticker)
  - flyers and postcards on Science Ship and CS days at universities
  - stand at the CS day in Aachen
- Linkage in the Web
  - multiple entries in Wikipedia
  - entry in Meyers Lexikon Online
  - presence in diverse school portals
  - links from home pages of schools
  - diverse reports in Blogs
- info flyer for teachers
- class material for teachers (visual cryptography)

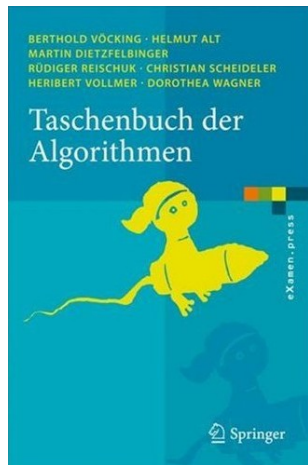
# Web statistics



Month	Unique visitors	Number of visits	Pages	Hits	Bandwidth
Jan 2006	0	0	0	0	0
Feb 2006	0	0	0	0	0
Mar 2006	4365	5355	17300	79445	2.73 GB
Apr 2006	5382	6703	21897	116304	4.67 GB
May 2006	12216	16007	72046	397451	12.02 GB
Jun 2006	8177	11441	42027	226232	6.86 GB
Jul 2006	8224	11134	37721	227536	6.76 GB
Aug 2006	7848	10562	37263	214303	6.05 GB
Sep 2006	8507	10909	36714	227762	6.40 GB
Oct 2006	9817	12583	42759	280455	7.72 GB
Nov 2006	11762	15057	45311	305135	8.36 GB
Dec 2006	10646	13917	44921	270059	7.87 GB
Total	86944	113668	397959	2344682	69.45 GB

## Visitors domains/countries (Top 10) - [Full list](#)

	Domains/Countries		Pages	Hits	Bandwidth	
	Germany	de	17670	116448	3.51 GB	
	Network	net	16819	101312	2.92 GB	
	Unknown	ip	4470	22306	683.85 MB	
	Commercial	com	1929	7644	222.04 MB	
	Switzerland	ch	1133	7899	173.22 MB	
	Austria	at	1048	7823	189.92 MB	
	Greece	gr	387	1500	43.07 MB	
	United Arab Emirates	ae	283	283	4.22 MB	
	Saudi Arabia	sa	87	87	628.79 KB	
	Canada	ca	86	195	14.84 MB	
	Others		1009	4562	137.46 MB	



paperback, 448 pages, Euro 19.95,  
published at Springer

four chapters

- searching and sorting
- calculating, encrypting, coding
- planing, strategic behaviour,  
computer simulation
- optimization

About 5000 copies of the text book have been distributed to schools.

## Participating CS departments

Aachen, Bonn, Berlin (TU), Dortmund, Essen, Hannover, Jena, Kaiserslautern, Karlsruhe, Konstanz, Lübeck, Mannheim, München (TU), Osnabrück, Paderborn, Saarbrücken, Stuttgart, Zürich

These copies have been donated by the departments or associated organisations

Springer reduced the price from Euro 20 to Euro 10 to support this activity.

You are invited to participate in the school campaign.

You are invited to participate in the school campaign.

We are planning to prepare an English version of the book.