

# Lecture Notes in Computer Science

Edited by G. Goos and J. Hartmanis

146

---

## Research and Development in Information Retrieval

Proceedings, Berlin, May 18–20, 1982



---

Edited by Gerard Salton and Hans-Jochen Schneider



Fachbereich Mathematik  
Technische Hochschule Darmstadt  
Bibliothek

Inv.-Nr. *B 19 550*

Springer-Verlag  
Berlin Heidelberg New York 1983

CONTENTS

Page

Norbert Henrichs	1
The Growing Crisis of Traditional Information Retrieval Systems - what is to follow?	
P. Bollmann, E. Konrad, H. Zuse	13
FAKYR - a Method Base System for Education and Research in In- formation Retrieval	
D. A. Buell, D. H. Kraft	20
LIARS: A Software Environment for Testing Query Processing Strategies	
W. B. Croft	28
The Implementation of a Document Retrieval System	
Joan Morrissey	38
An Intelligent Terminal for Implementing Relevance Feedback on Large Operational Retrieval Systems	
C. Moulinoux, J.C. Faure, W. Litwin	51
MESSIDOR: A Distributed Information Retrieval System	
M. Bärtschi and H.P. Frei	62
Adapting a Data Organization to the Structure of Stored Information	
Horst Biller	80
On the Architecture of a System Integrating Data Base Management and Information Retrieval	
M.E. Maron	98
Probabilistic Approaches to the Document Retrieval Problem	

	Page
S.E. Robertson, London, U.K., M.E. Maron, W.S. Cooper The Unified Probabilistic Model for IR	108
Abraham Bookstein Explanation and Generalization of Vector Models in Information Retrieval	118
Tadeusz Radecki Incorporation of Relevance Feedback into Boolean Retrieval Systems	133
G. Salton, C. Buckley, C.T. Yu An Evaluation of Term Dependence Models in Information Retrieval	151
Gerhard Knorz A Decision Theory Approach to Optimal Automatic Indexing	174
Jean Tague and Michael Nelson Simulation of Bibliographic Retrieval Databases Using Hyperterms	194
Vijay V. Raghavan, M.Y.L. Ip Techniques for Measuring the Stability of Clustering: A Comparative Study	209
Bernd Drewes Retrieval of Abstracts by Analogy	238
Tamas E. Doszkocs From Research to Application: The Cite Natural Language Information Retrieval System	251

Linda C. Smith	263
Machine Intelligence VS. Machine-Aided Intelligence in Information Retrieval: A Historical Perspective	
F.J. Smith and R.J. Linggard	275
Information Retrieval by Voice Input and Output	
A.S. Fraenkel, M.Mor and Y. Perl	289
Is Text Compression by Prefixes and Suffixes Practical?	