# Hot Links | David A. Patterson

# Hot Links

**A**CM provides a large number of online resources for its members, some of which you may not be aware of. In an attempt to rectify this situation, we are introducing a monthly column listing the most popular downloads in three categories: refereed journal and conference papers, magazines and survey articles, and online courses. The three tables show the top 10 papers, articles, and courses ranked each month (this column reflects July 2004 statistics), and then how those top 10 fared over the prior year (July 2004 to July 2003).

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**Refereed journal and conference papers** repre-

| | | Top 10 Most Popular Papers from Journals and Proceedings for July 2004. |
|---|---|---|
| **Month** | **Year** | **Title, Author, Publication, Date** |
| 1 | 1 | "Case Studies on Testing Object-Oriented Programs." Roong-Ko Doong, Phyllis G. Frankl. *Proceedings of the Symposium on Testing, Analysis, and Verification.* Oct. 1991. |
| 2* | 567 | "The Cost of Messages." Jim Gray. *Proceedings of the Seventh Annual ACM Symposium on Principles of Distributed Computing.* Aug. 1988. |
| 2* | 4 | "Power-Aware Architectures and Circuits for FPGA-based Signal Processing." Frank Honoré, Ben Calhoun, Anantha Chandrakasan. *Proceedings of the 2003 ACM/SIGDA 11th International Symposium on Field Programmable Gate Arrays.* Feb. 2003. |
| 4 | 18 | "Partially Shared Views: A Scheme for Communicating Among Groups that Use Different Type Hierarchies." Jintae Lee, Thomas W. Malone. *ACM Transactions on Information Systems,* Jan. 1990. |
| 5 | 33 | "IPNL: A NAT-Extended Internet Architecture." Paul Francis Ramakrishna. *Proceedings of the 2001 Conference on Applications, Technologies, Architectures, and Protocols for Computer Communications.* Aug. 2001. |
| 6 | 65 | "Derivation of Invariant Assertions During Program Development by Transformation." Manfred Broy, Bernd Krieg-Bruckner. *ACM Transactions on Programming Languages and Systems,* July 1980 |
| 7* | 40 | "Abstract Computability and Algebraic Specification." J. V. Tucker, J.I. Zucker. *ACM Transactions on Computational Logic,* Apr. 2002 |
| 7* | 55 | "Reasoning with Higher-Order Abstract Syntax in a Logical Framework." Raymond C. McDowell, Dale A. Miller. *ACM Transactions on Computational Logic,* Jan. 2002. |
| 9 | 59 | "Programming as an Evolutionary Process." F.L. Bauer. *Proceedings of the 2nd International Conference on Software Engineering,* Oct. 1976. |
| 10 | 74 | "Typed Representation of Objects by Functions." J. Steensgaard-Madsen. *ACM Transactions on Programming Languages and Systems,* Jan. 1989. |

*Tied for total number of downloads

# Hot Links

| Top 10 Most Popular Magazine and *Computing Surveys* Articles for July 2004. | | |
|---|---|---|
| **Month** | **Year** | **Title, Author, Publication, Date** |
| 1 | 4 | "The Profession of IT: Who are We?" Peter J. Denning. *Communications of the ACM,* Feb. 2001. |
| 2 | 79 | "Frameworks for Component-based Client/Server Computing." Scott M. Lewandowski. *ACM Computing Surveys,* Mar. 1998. |
| 3 | 5 | "Face recognition: A Literature Survey." W. Zhao, R. Chellappa, P.J. Phillips, A. Rosenfeld. *ACM Computing Surveys.* Dec. 2003. |
| 4 | 2 | "Data Clustering: A Review." A.K. Jain, M.N. Murty, P.J. Flynn. *ACM Computing Surveys,* Sept. 1999. |
| 5 | 1 | "Aspect-Oriented Programming: Introduction." Tzilla Elrad, Robert E. Filman, Atef Bader. *Communications of the ACM,* Oct. 2001. |
| 6 | 7 | "An Analysis of XML Database Solutions for the Management of MPEG-7 Media Descriptions." Utz Westermann, Wolfgang Klas. *ACM Computing Surveys,* Dec. 2003. |
| 7 | 58 | "The Business of Software: The Laws of Software Process." Phillip G. Armour. *Communications of the ACM,* Jan. 2001. |
| 8 | 9 | "Wireless Integrated Network Sensors." G.J. Pottie, W.J. Kaiser. *Communications of the ACM,* May 2000. |
| 9 | 400 | "Existential Education in the Era of Personal Cybernetics." Steve Mann. *Communications of the ACM,* May 2000. |
| 10 | 292 | "Can E-Learning Replace Classroom Learning?" Dongsong Zhang, J. Leon Zhao, Lina Zhou, Jay F. Nunamaker, Jr. *Communications of the ACM,* May 2004. |

sent about 75% of the downloads from the ACM Portal. They are remarkably diverse by topic and by year and they are "flat:" the top 10 represent only about 0.2% of the downloads in this category.

**The Top 10 magazine and survey articles** represent about 3% of the downloads in this category. This list includes full articles only; we have eliminated departments such as notices from the editor, for example. We also do not include the current month's issue and last month's issue since some ACM members subscribe to these publications electronically only, and downloads for these issues are often those members simply getting their subscription via the Portal.

**Online courses** are available to members as part of the Professional Development Center (PDC). These courses are downloaded onto your computer and typically take about six hours. Note that this top 10 features learning about relational databases and newer programming languages. Although these are mostly introductory courses, the PDC does include more advanced courses. I expect these courses will become increasingly valuable in your careers, as we cope with both fast-moving technology and the responsibility to keep up to date—a responsibility today that is yours rather than your company's. **C**

DAVID A. PATTERSON is the president of ACM.

| Top 10 Most Popular PDC Courses and Books for July 2004. | | | | | |
|---|---|---|---|---|---|
| **Month** | **Year** | **Course Title** | **Month** | **Year** | **Course Title** |
| 1 | 1 | UML Fundamentals | 6 | 8 | Object-Oriented Programming in C++ |
| 2 | 5 | Basic Programming in C | 7 | 10 | Advanced Programming in C++ |
| 3 | 2 | Introduction to C# | 8 | 6 | Data Modeling |
| 4 | 3 | Project Management: Initiation and Plan Launch | 9 | 4 | Introduction to the Java™ Programming Language |
| 5 | 7 | Introduction to Programming in C ++ | 10 | 9 | Introduction to SQL, Part 1 |