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Soggetti	Data structures (Computer science) Programming languages (Electronic computers) Database management Information storage and retrieval Application software Data Structures and Information Theory Programming Languages, Compilers, Interpreters Database Management Data Storage Representation Information Storage and Retrieval Information Systems Applications (incl. Internet)
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Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	Invited Contributions -- CQL: A Language for Continuous Queries over Streams and Relations -- XPath Query Processing -- Static Analysis -- Satisfiability of XPath Expressions -- Containment of Relational Queries with Annotation Propagation -- Avoiding Unnecessary Ordering Operations in XPath -- Transactions -- Consistency of Java Transactions -- Integrating Database and Programming Language Constraints -- A Unifying Semantics for Active Databases Using Non-

Markovian Theories of Actions -- Modeling Data and Services --
Modelling Dynamic Web Data -- Semantics of Objectified XML
Constraints -- M2ORM2: A Model for the Transparent Management of
Relationally Persistent Objects -- Novel Applications of XML and
XQuery -- Using XQuery for Flat-File Based Scientific Datasets -- A
Query Algebra for Fragmented XML Stream Data -- XML Processing and
Validation -- Updates and Incremental Validation of XML Documents --
Attribute Grammars for Scalable Query Processing on XML Streams -- A
General Framework for Estimating XML Query Cardinality.

Sommario/riassunto

The papers in this volume represent the technical program of the 9th Biennial Workshop on Data Bases and Programming Languages (DBPL2003), which was held on September 6–8, 2003, in Potsdam, Germany. The workshop meets every two years, and is a well-established forum for ideas that lie at the intersection of database and programming language research. DBPL 2003 continued the tradition of excellence initiated by its predecessors in Roscoff, Finistère (1987), Salsburgh, Oregon (1989), Nafplion, Argolida (1991), Manhattan, New York (1993), Gubbio, Umbria (1995), Estes Park, Colorado (1997), Kinloch Rannoch, Scotland (1999), and Frascati, Rome (2001).

The program committee selected 14 papers out of 22 submissions, and invited two contributions. The 16 talks were presented over three days, in seven sessions. In the invited talk Jennifer Widom presented the paper CQL: a Language for Continuous Queries over Streams and Relations, coauthored by Arvind Arasu and Shivnath Babu.

While a lot of research has been done recently on query processing over data streams, CQL is virtually the first proposal of a query language on streams that is a strict extension of SQL. The language is structured around a simple yet powerful idea: it has two distinct data types, relations and streams, with well-defined operators for mapping between them. Window specification expressions, such as sliding windows, map streams to relations, while operators such as “insert stream,” “delete stream,” and “relation stream” map relations to streams by returning, at each moment in time, the newly inserted tuples, the deleted tuples, or a snapshot of the entire relation. The numerous examples in this paper make a convincing case for the power and usefulness of CQL.
