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Nota di contenuto	Domain-Specific Languages -- Spidle: A DSL Approach to Specifying Streaming Applications -- TDL: A Hardware Description Language for Retargetable Postpass Optimizations and Analyses -- Hume: A Domain-Specific Language for Real-Time Embedded Systems -- Staged Programming -- Implementing Multi-stage Languages Using ASTs, Gensym, and Reflection -- On Stage Ordering in Staged Computation -- Staged Notational Definitions -- Invited Talk -- A Journey from Interpreters to Compilers and Virtual Machines -- Modeling to Code --

DAOP-ADL: An Architecture Description Language for Dynamic Component and Aspect-Based Development -- ANEMIC: Automatic Interface Enabler for Model Integrated Computing -- Aspect-Oriented -- An Approach for Supporting Aspect-Oriented Domain Modeling -- The Convergence of AOP and Active Databases: Towards Reactive Middleware -- A Selective, Just-in-Time Aspect Weaver -- Meta-programming and Language Extension -- An Extension to the Subtype Relationship in C++ Implemented with Template Metaprogramming -- Concept-Controlled Polymorphism -- Component-Based DSL Development -- Invited Talk -- Towards a More Piece-ful World -- Automating Design-to-Code Transitions -- A Generative Approach to Framework Instantiation -- Making Patterns Explicit with Metaprogramming -- Principled Domain-Specific Approaches -- Generating Spreadsheet-Like Tools from Strong Attribute Grammars -- SynchNet: A Petri Net Based Coordination Language for Distributed Objects -- Partial Evaluation of MATLAB -- Generation and Translation -- An Easy-to-Use Toolkit for Efficient Java Bytecode Translators -- A Case for Test-Code Generation in Model-Driven Systems.

Sommario/riassunto

This volume constitutes the proceedings of the second International Conference on Generative Programming and Component Engineering (GPCE 2003), held September 22–25, 2003, in Erfurt, Germany, sponsored by the NetObjectDays German industrial software development event, in cooperation with the ACM SIGPLAN and SIGSOFT societies. GPCE was created as an effort to bring together researchers working on both the programming languages and the software engineering side of program generation and component engineering. The common theme of program generation and component engineering is the domain-specific nature of both approaches. Depending on the characteristics of a domain, either a generative or a compositional technical solution may be appropriate. In just its second year, GPCE has shown a lot of promise for building a strong community. The response to the call for papers was excellent, with 62 submissions to the technical program, 2 of which were later withdrawn. Each paper received between three and five reviews, many of them quite thorough and hopefully valuable to all authors. The electronic meeting allowed for in-depth discussions of all submissions, often to a much greater extent than possible in a physical PC meeting. As a result, 21 papers were selected for presentation at the conference and are included in this volume, together with abstracts for the invited talks by Olivier Danvy and Peri Tarr. Of the accepted papers, 3 are co-authored by PC members (from a total of 5 PC submissions). We tried hard to ensure fairness and hold PC submissions to a high standard. The EDAS conference submission system was used to manage the paper submissions. Our EDAS installation was supported by Blair MacIntyre, who was particularly helpful in resolving technical issues with the system.
