



APAQS 2001

Second Asia-Pacific Conference on Quality Software

New World Renaissance Hotel, Hong Kong, 10-11 December 2001

Final Program

<http://www.cs.cityu.edu.hk/~apaqs>



| Day 1: 10 December 2001 (Monday) | |
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| 8:00 - 8:30 | Registration |
| 8:30 - 8:50 | Opening Session Session Chair: P.T. Ho |
| <ul style="list-style-type: none"> Welcome Address from the General Chair <i>N. Lee, Executive Director, Vocational Training Council, Hong Kong</i> Program Overview <i>Y.T. Yu and T.Y. Chen, Program Co-Chairs</i> | |
| 8:50 - 9:50 | Keynote Session 1 Session Chair: Peter C. Poole |
| <ul style="list-style-type: none"> New Perspectives in Software Engineering — Observations, Obstacles and Opportunities <i>C.V. Ramamoorthy, University of California at Berkeley, USA</i> | |
| 9:50 - 10:30 | Tea Break |
| 10:30 - 12:00 | Parallel Sessions 1 |
| Session 1A: Program Analysis I Session Chair: H.F. Leung <ul style="list-style-type: none"> Analysis and Implementation Method of Program to Detect Inappropriate Information Leak <i>R. Yokomori, F. Ohata, Y. Takata, H. Seki, and K. Inoue</i> Computing Executable Slices for Concurrent Logic Programs <i>J. Zhao, J. Cheng, and K. Ushijima</i> Exception Analysis for Multithreaded Java Programs <i>S. Ryu and K. Yi</i> | |
| Session 1B: Software Reliability Session Chair: Kai-Yuan Cai <ul style="list-style-type: none"> An Analysis of Software Correctness Prediction Methods <i>P. Kokol, V. Podgorelec, M. Zorman, M. Sprogar, and M. Pighin</i> A Fast Algorithm to Compute Maximum Likelihood Estimates for the Hypergeometric Software Reliability Model <i>F. Padberg</i> An Ordinal-Time Reliability Model Applied to "Big-Bang" Suite-Based Testing <i>N. Davidson</i> | |
| Session 1C: Software Quality Session Chair: John Jenkins <ul style="list-style-type: none"> Incremental Quality Network <i>S. Coronado and J. Jaén</i> Strategic Drivers of Software Quality: Beyond External and Internal Software Quality <i>R. Fitzpatrick</i> Using a Coding Standard to Improve Program Quality <i>X. Fang</i> | |
| 12:00 - 14:00 | Lunch (at Lobby Lounge) |
| 14:00 - 15:00 | Parallel Sessions 2 |
| Session 2A: Program Analysis II Session Chair: P.K. Wong <ul style="list-style-type: none"> Object-Oriented Program Behavior Analysis Based on Control Patterns <i>C.-C. Hwang, S.-K. Huang, D.-J. Chen, and D. Chen</i> A Path-Based Approach to the Detection of Infinite Looping <i>J. Zhang</i> | |
| Session 2B: Quality Metrics Session Chair: T.Y. Chen <ul style="list-style-type: none"> Assurance of Conceptual Data Model Quality Based on Early Measures <i>M. Genero, M. Piattini, and C. Calero</i> The Use of Software Quality Metrics in the Materiel Release Process — Experience Report <i>M. Saboe</i> | |
| Session 2C: Software Development I Session Chair: K. Kishida <ul style="list-style-type: none"> Why Software Engineering is Riskier than Ever <i>A. Fuller, P. Croll, and O. Garcia</i> On Prediction of Cost and Duration for Risky Software Projects Based on Risk Questionnaire <i>O. Mizuno, T. Adachi, T. Kikuno, and Y. Takagi</i> | |
| 15:00 - 15:30 | Tea Break |
| 15:30 - 17:00 | Parallel Sessions 3 |
| Session 3A: Formal Methods I Session Chair: T.Y. Cheung <ul style="list-style-type: none"> Partial Validation of a Design Specification with Respect to Requirements <i>C. Besse, A. Cavalli, and F. Khendek</i> Constructing Hardware/Software Interface Using Protocol Converters <i>S. Qin, Z. Qiu, and J. He</i> Class and Module in SOFL <i>S. Liu and J. Dong</i> | |
| Session 3B: Testing I Session Chair: M.F. Lau <ul style="list-style-type: none"> Optimal Test Profile in the Context of Software Cybernetics <i>K.-Y. Cai</i> Testable Use Cases in the Abstract State Machine Language <i>W. Grieskamp, M. Lepper, W. Schulte, and N. Tillmann</i> Experience Report on Conformance Tests for CORBA ORBs <i>M. Li, A. Rennoch, I. Schieferdecker, D. Witaszek, O. Halabi, A. Vouffou, and A. Yin</i> | |
| Session 3C: Software Development II Session Chair: Y.K. Leung <ul style="list-style-type: none"> Railway Power SCADA System Commissioning "Case Example" <i>I. Hampton and K. Lam</i> Stakeholder Discovery and Classification Based on Systems Science Principles <i>O. Preiss and A. Wegmann</i> Quality & People in the Development of Situationally Specific Methods <i>S. Young, S. McDonald, H. Edwards, and J. Thompson</i> A Risk-Driven Design Model for Embedded System <i>Y. Dong and M. Li</i> | |
| 18:30 - 21:30 | Conference Banquet (at Peking Garden Restaurant) |

| Day 2: 11 December 2001 (Tuesday) | |
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| 9:00 - 10:00 | Keynote Session 2 Session Chair: T.H. Tse |
| <ul style="list-style-type: none"> End-to-End Integration Testing <i>Raymond Paul, Department of Defense, Washington, DC, USA</i> | |
| 10:00 - 10:30 | Tea Break |
| 10:30 - 12:00 | Parallel Sessions 4 |
| Session 4A: Formal Methods II Session Chair: Jin Song Dong <ul style="list-style-type: none"> Incremental Fault-Tolerant Design in an Object-Oriented Setting <i>E. Johnsen, O. Owe, E. Munthe-Kaas, and J. Vain</i> PAFAS at Work: Comparing the Worst-Case Efficiency of Three Buffer Implementations <i>F. Corradini, M. Di Berardini, and W. Vogler</i> DLOTOS: A LOTOS Extension for Clock Synchronization in Distributed Systems <i>W. Hassan</i> | |
| Session 4B: Testing II Session Chair: P.L. Poon <ul style="list-style-type: none"> Combining the Animation and Testing of Abstract Data Types <i>T. Miller and P. Strooper</i> A Selective Software Testing Method Based on Priorities Assigned to Functional Modules <i>M. Hirayama, T. Yamamoto, J. Okayasu, O. Mizuno, and T. Kikuno</i> URL-Driven Automated Testing <i>R. Wen</i> | |
| Session 4C: Process Models and Tools Session Chair: Ho-Won Jung <ul style="list-style-type: none"> A Tailored Capability Model for Inspection Process Improvement <i>I. Tervonen, J. Iisakka, and L. Harjumaa</i> A Path to Virtual Software Inspection <i>L. Harjumaa, H. Hedberg, and I. Tervonen</i> A Software Factory Model Based on ISO9000 and CMM for Chinese Small Organizations <i>C. Li, H. Li, and M. Li</i> | |
| 12:00 - 14:00 | Lunch (at Lobby Lounge) |
| 14:00 - 15:00 | Parallel Sessions 5 |
| Session 5A: Requirements Engineering Session Chair: S.-C. Cheung <ul style="list-style-type: none"> Requirements Management for the Incremental Development Model <i>Q. Wang and X. Lai</i> A New Tool to Analyze ER-Schemas <i>F. Boufares and N. Kraïem</i> | |
| Session 5B: Usability Session Chair: F.T. Chan <ul style="list-style-type: none"> QUIM: A Framework for Quantifying Usability Metrics in Software Quality Models <i>A. Seffah, N. Kececi, and M. Donyae</i> Comparison of Chinese and Japanese in Designing B2C Web Pages Toward Impressional Usability <i>J. Hu, J. Zhao, K. Shima, Y. Takemura, and K.-I. Matsumoto</i> | |
| Session 5C: Process Improvement and Assessment Session Chair: Barrie Thompson <ul style="list-style-type: none"> Special Requirements for Software Process Improvement Applied in Teleworking Environments <i>H. Guo</i> Analysis of Interrater Agreement in ISO/IEC 15504-Based Software Process Assessment <i>H.-Y. Lee, H.-W. Jung, C.-S. Chung, J. Lee, K. Lee, and H. Jeong</i> Priorities of Process Improvement Outcomes Based on Process Capability Levels <i>T. Varkoi, M. Lepasaar, and H. Jaakkola</i> | |
| 15:00 - 15:30 | Tea Break |
| 15:30 - 17:00 | Parallel Sessions 6 |
| Session 6A: Formal Verification Session Chair: Paul Strooper <ul style="list-style-type: none"> Formally Modeling and Verifying Ricart&Agrawala Distributed Mutual Exclusion Algorithm <i>K. Ogata and K. Futatsugi</i> Towards a Verification of the Rule-Based Expert System of the IBM SA for OS/390 Automation Manager <i>C. Sinz, W. Küchlin, and T. Lupp</i> Towards Automatic Verification of Embedded Control Software <i>N. Bauer and R. Huuck</i> | |
| Session 6B: E-commerce Session Chair: Lucas C.K. Hui <ul style="list-style-type: none"> On the Modelling of Document Exchange Processes in E-Commerce Protocols <i>X. Wang, S.-C. Cheung, and J. Wei</i> Beyond E-commerce Software Quality: Web Services Effectiveness <i>H.-S. Chiu and C. Yang</i> A Specific Software Development Process for an Electronic Commerce Portal <i>V. Gruhn, L. Schöpe, and M. Book</i> | |
| Session 6C: Configuration Management Session Chair: S.L. Hung <ul style="list-style-type: none"> A Software Product Model Emphasizing Relationships <i>S.-C. Chou and C.-W. Huang</i> Complex Systems Development Requirements – PDM and SCM Integration <i>I. Crnkovic, A. Dahlkvist, and D. Svensson</i> Use of Binary File Comparison Tools in Software Release Management <i>V. Fanberg</i> | |

● Keynote address ■ Full paper □ Short paper ◆ Experience report