

XXIX International Conference of the SCCC 2010

Wednesday (Nov. 17)

11:00-13:00hs Opening Session

Chair: Sergio F. Ochoa

- Summary of the papers reviewing process
- Keynote Speech: “*The PlusCal Algorithm Language*” Dr. Leslie Lamport – Microsoft Research

13:00-14:30hs Lunch

14:30-15:30hs Technical Session 1 – Algorithms and Information Retrieval I

Chair: Rodrigo Paredes

- Jeremy Barbay, Carlos Bedregal and Gonzalo Navarro. Improving Text Indexes Using Compressed Permutations
- Jose Elias Claudio Arroyo, Rafael dos Santos Ottoni and Adão Egas Castro Paiva. A bi-objective VNS algorithm for single machine scheduling problem with distinct due windows, weighted earliness/tardiness penalties and total flowtime
- Manuel Bozzo, Martín Gutierrez and Tomás Bozzo. Genetic Algorithm based Voice Imitation System
- Thelma Elita Colanzi, Wesley Klewerton Guez Assunção, Ana Cristina B. Kochem Vendramin, Diogo Augusto Barros Pereira and Aurora Trinidad Ramirez Pozo. Empirical Studies on Application of Genetic Algorithms and Ant Colony Optimization for Data Clustering

15:30-16:30hs Technical Session 2 – Algorithms and Information Retrieval II

Chair: Federico Meza

- Agustín Córdoba and Gustavo García. Symbiotic Cellular Automata As Cipherring Algorithm Core - Stream Cipherring Software
- Santiago Cioli, Gonzalo Ordeix, Eduardo Fernández, Martín Pedemonte and Pablo Ezzatti. Improving the Performance of the Ray Tracing Algorithm with a GPU
- Federico Romero and Helena Muñoz. Information retrieval method to extract relationships between gene and diseases
- Lorenis Pardo, Hugo Sánchez and Gerardo Pirela Morillo. Integrating a Speech Recognizer and a Speech Synthesizer for Zulian dialect.

16:30-17:00hs Coffee Break

17:00-18:00hs Technical Session 3 – Software Engineering I

Chair: Sergio Mujica

- Juan Manuel Rodriguez, Marco Crasso, Cristian Mateos, Alejandro Zunino and Marcelo Campo. The EasySOC Project: A Rich Catalog of Best Practices for Developing Web Service Applications
- Luciano Ascari and Silvia Vergilio. Mutation Testing Based on OCL Specifications and Aspect Oriented Programming

- Pablo Cruz, Rodolfo Villarroel Acevedo, Fernando Mancilla and Marcello Visconti. A Software Testing Process for the Reference Model of Competisoft
- Francisco Javier Díaz, Claudia Alejandra Queiruga and Pablo Luliano. Privacy4mJSF: a Solution to Build Privacy JSF Mobile Applications

18:00-19:00hs Technical Session 4 – Software Engineering II

Chair: Marcelo Visconti

- Julio Ariel Hurtado Alegría, María Cecilia Bastarrica and Alexandre Bergel. Analyzing the Scrum Process Model with AVISPA
- Omar C. Martinez, Silvio Gonnet and Horacio Leone. Analysis of Orthogonal Variability Model Using Petri Nets
- Eduardo B. Fernandez and Sergio Mujica. Building secure systems: From threats to security patterns
- André Luís Sales de Moraes, Rodrigo de Campos Brito, Antonio Carlos Contieri Junior, Marcos Cláudio Ramos, Thelma Elita Colanzi, Paulo Cesar Masiero and Itana Maria de Souza Gimenes. Using aspects and the Spring framework to implement variabilities in a software product line

Thursday (Nov. 18)

09:00-10:20hs Technical Session 5: Lo Mejor de lo Nuestro I

Chair: Eric Tanter

- Arenas M., Pérez J., Riveros C. (2008): The Recovery of a Schema Mapping: Bringing the Exchanged Data Back. 28th ACM Symposium on Principles of Database Systems 2008 (PODS08), Vancouver, Canada, June.
- Muñoz S., Pérez J., Gutierrez C. (2007): Minimal Deductive Systems for RDF. 4th European Semantic Web Conference 2007 (ESWC07), Innsbruck, Austria, June.
- Barcelo P., Libkin L., Poggi A., Sirangelo C. (2009): XML with Incomplete Information: Models, Properties and Query Answering. In Proceedings 28th ACM SIGMOD-SIGACT-SIGART Symposium on Principles of Database Systems (PODS'09), pages 237-246.
- Brisaboa N., Farioa A., Ladra S., Navarro G. (2008). Reorganizing Compressed Text. Proc. ACM SIGIR'08, pages 139-146.

10:20-10:40hs Coffee Break

10:40-12:00hs Technical Session 6: Lo Mejor de lo Nuestro II

Chair: Mario Inostroza

- Sohrabi S., Baier J.A., McIlraith S.A. (2010): Diagnosis as Planning Revisited. 2010. In Proceedings of the 12th International Conference on the Principles of Knowledge Representation and Reasoning (KR-10), 26-36, Toronto, Canada, May.
- Espinace P., Kollar T., Soto A., Roy N. (2010): Indoor Scene Recognition Through Object Detection. IEEE International Conference on Robotics and Automation (ICRA-2010).

- Curilem, G.M., Vergara J., Fuentealba, G., Acuña G., Chacón M. (2009): Classification of Seismic Signals at Villarrica Volcano (Chile) using Neural Networks and Genetic Algorithms. *Journal of Volcanology and Geothermal Research*, 180(1):1-8.
- Afshani P., Barbay J., Chan T. (2009): Instance-Optimal Geometric Algorithms. In *Proc. 50th IEEE Symposium on Foundations of Computer Science (FOCS)*, pp. 129-138, Atlanta, Oct

12:10-13:30hs Technical Session 7: Lo Mejor de lo Nuestro III

Chair: Yadran Eterovic

- Vignaga A., Jouault F., Bastarrica M.C., Bruneliere H. (2009). Typing in Model Management. In R. Paige, editor, *ICMT 2009, 2nd International Conference on Model Transformation*, LNCS 5563, pages 197 - 212, ETH Zurich, Switzerland, June.
- Tanter E. (2010): Execution levels for aspect-oriented programming. *Proceedings of the 9th International Conference on Aspect-Oriented Software Development*, Pages: 37-48, 2010.
- Poblete B., Spiliopoulou M., Baeza-Yates R.: Privacy-preserving query log mining for business confidentiality protection. *ACM Transactions on the Web*, Vol. 4, No. 3, Article 10.
- Robbes R., Lanza M. (2009): Improving code completion with program history. *Journal Automated Software Engineering*, (17)2:181-212, June.

13:30-14:30hs Lunch

14:30-16:30hs Technical Session 8: II Workshop on Agents and Collaborative Systems

Chair: Claudio Cubillos

- Sergio Chaigneau, Enrique Canessa and Ariel Quezada. The spreading and demise of concepts in social groups
- Héctor Allende-Cid, Enrique Canessa and Ariel Quezada. An Improved Fuzzy Rule-Based Automated Trading Agent
- Romina Torres, Hernan Astudillo and Enrique Canessa. MACOCO: A self-organizing component composition framework using a Multiagent Ecosystem
- Daniel Cabrera-Paniagua, Galo Herrera and Makarena Donoso. Towards a Model for Dynamic Formation and Operation of Virtual Organizations: The case of Urban Public Transport
- Makarena Donoso, Daniel Cabrera, Claudio Cubillos and Daniel Sandoval. Simulating Passenger Transportation Scenarios through SIM-MADARP
- Homero Latorre and Gaston Lefranc. Propuesta de Modelo de Comportamiento para Comunidad de Agentes Roboticos
- Carlos Hernández Ulloa and Jorge Baier. Escaping Heuristic Hollows in Real-Time Search without Learning

16:30-17:00hs Coffee Break

17:00-18:00hs Technical Session 9: Software Engineering III

Chair: Alexandre Bergel

- Alcides Quispe, Maira Marques, Luis Silvestre, Sergio Ochoa and Romain Robbes. Requirements Engineering Practices in Very Small Software Enterprises: A Diagnostic Study
- Gislaïne Camila Leal, César Silva, Elisa Huzita and Márcio Eduardo Delamaro. A Viability Study of An Integrated Approach of Software Development and Test to Distributed Teams
- Marcelo Schots, Claudia S. Rodrigues, Cláudia Werner and Leonardo Murta. A Study on the Application of the PREViA Approach in Modeling Education
- Fernando Mancilla, Hernan Astudillo and Marcello Visconti. An analysis of the software architecture in components-based complex systems

18:00-19:00hs Technical Session 10: Data Processing

Chair: Renzo Angles

- Robson Fidalgo, Carla Tanure and Jarley Nóbrega. Towards a Decoupled Software Architecture for OLAM: a Case Study using Association Rules
- Gilberto Gutiérrez, Miguel Pincheira and Luis Gajardo. Closest pair query on Spatial data sets without index
- Neil Carlos, Jerónimo Irazábal, Marcelo De Vincenzi and Claudia Pons. Graphical Query Mechanism for Historical Data Warehouse within MDD
- Christian Avendaño Jeldres and Martin Gutierrez Pescarmona. Optimization of Association Rules with Genetics Algorithms

Friday (Nov. 19)

08:30-09:30hs Technical Session 11: Software Engineering IV

Chair: Yadrán Eterovic

- Verónica Bogado, Silvio Gonnet and Horacio Leone. An Approach based on DEVS for Evaluating Quality Attributes
- Christian Peña, María Cecilia Bastarrica and Daniel Perovich. ATAM-hw: Extending ATAM for Explicitly Incorporating Hardware-Related Trade-off Decisions
- Jeronimo Irazabal and Claudia Pons. Supporting modularization in textual DSL development
- Evelyn Perez Cervantes and Jesús Mena Chalco. A New Approach to Detect Communities in Multi-Weighted Co-authorship Networks

09:30-10:30hs Technical Session 12: Artificial Intelligence and Machine Learning

Chair: Gonzalo Acuña

- Ana Julia Villar and Juan Miguel Santos. Use of Kernel Smoothing and Symmetry in Continuous Spaces to Accelerate Q-learning
- Cristina Parpaglione and Juan Miguel Santos. Sensing capability discovering in Multi Agent Systems
- Felipe Ramirez, Héctor Allende-Cid and Alejandro Veloz. Neuro-fuzzy-based Arrhythmia Classification Using Heart Rate Variability Features

- Alberto Holts, Claudio Riquelme and Rodrigo Alfaro. Automated Text Binary Classification using Machine Learning approach

10:30-11:00hs Coffee Break

11:00-12:00hs Technical Session 13: Human-Computer Interaction

Chair: Romain Robbes

- Daniel Winkler and Hubert Hoffmann. Selection Techniques for Dense and Occluded Virtual 3D Environments, Supported by Depth Feedback
- Daniel Biella, Wolfram Luther and Nelson Baloian. Virtual Museum Exhibition Designer Using Enhanced ARCO Standard
- Benjamin Weyers and Wolfram Luther. Formal Modeling and Reconfiguration of User Interfaces
- Marcela Bonilla, Sebastián Marichal, Gustavo Armagno and Tomás Laurenzo. Designing interfaces for children with motor impairments: An ethnographic approach

12:00-13:00hs Technical Session 14: Software Applications

Chair: Wolfram Luther

- Mauricio Cerda, Renato Valenzuela, Nancy Hitschfeld-Kahler, Lucas D. Terissi and Juan C. Gómez. Generic face animation
- Paulo Gonzalez, Marco Mora, Victor Cabezas, Fernando Cordova and Javier Vidal. Morphological processing of color images using distance-based operators and lexicographic order
- Carlos Manuel Toledo, Omar Chiotti and María Rosa Galli. Towards Business Process Management and Knowledge Management Integration through an Agent-based Architecture
- Francisco Cruz and Gonzalo Acuña. Indirect Training with Error Backpropagation in Gray-Box Neural Model: Application to a Chemical Process

13:00-14:30hs Lunch

14:30-15:15hs Technical Session 15: Theoretical Computer Science

Chair: Pablo Barceló

- Alejandro L. Grosso and José María Turull-Torres. A Second-Order Logic in which Variables Range over Relations with Complete First-Order Types
- Matias Lee and Pedro R. D'Argenio. A Refinement Based Notion of Non-Interference for Interface Automata: Compositionality, Decidability and Synthesis
- Carlos Bedregal and Eric Sadit Tellez. Operators Over Compressed Integer Encodings

15:15-16:30hs Technical Session 16: Empirical Studies in Computer Science

Chair: Cecilia Bastarrica

- Pablo Sepúlveda, Víctor Ramiro, Tomás Barros and José Miguel Piquer. Soundness of Chilean Internet Routes
- Javier Bustos, Mauricio Hidalgo and Elisa Schaeffer. Estimating the size of natural networks using local information
- Andre Engelbrecht, Adriana Vivacqua, Marcos Borges, Álvaro Monares, Sergio Ochoa and José Pino. A Decision Support System for Medium-Sized Emergencies

16:30 – Closing Session (Cecilia Bastarrica)