

# 1st International Conference on Data Compression, Communication and Processing (CCP 2011)

King's Residence Hotel  
Palinuro (SA), June 21-24, 2011

<http://ccp2011.dia.unisa.it>

## PROGRAM COMMITTEE:

B. Carpentieri (U. di Salerno - Italy) (Chair)  
D. Careglio (U. Politecnica de Catalunya - Spain)  
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A. Lempel (Technion – Israel)  
F-Y. Leu (Tunghai U. - Taiwan)  
L. Licciardi (Telecom Italia - Italy)  
F. Palmieri (Seconda U. degli Studi di Napoli- Italy)  
J. Storer (Brandeis U. - U.S.A.)  
L. Tallini (U. di Teramo – Italy)  
P. Vitanyi (CWI and U. of Amsterdam - The Netherlands)  
M. Weinberger (HP – U.S.A.)  
J. Ziv (Technion – Israel)

## **June 20: MONDAY EVENING**

7-9 PM: Welcome cocktail and registration (King's Residence Hotel)

## **June 21: TUESDAY MORNING**

9 AM: Registration and Conference Opening

9,30 – 10,30 AM: Invited Talk:

Prof. Jacob Ziv (Technion – Israel)

"An Axiomatic Approach to the notion of Similarity of individual Sequences and their Classification"

- Coffee Break

*11 AM – 1 PM: Session (DATA COMPRESSION I)*

***Session Chair: Hidetoshi Yokoo, Gunma University, Kiryu, Japan***

- “Asymptotic Optimal Lossless Compression via the CSE Technique”, Hidetoshi Yokoo, Gunma University, Kiryu, Japan.
- “An Online Algorithm for Lightweight Grammar-Based Compression”, Shirou Maruyama and Masayuki Takeda and Masaya Nakahara and Hiroshi Sakamoto, Kyushu University and Kyushu Institute of Technology, Fukuoka, Japan.
- “Combining non-stationary prediction, optimization and mixing for data compression”, Christopher Mattern, Fakultät für Informatik und Automatisierung, Technische Universität Ilmenau, Germany.
- “Cache Friendly Burrows-Wheeler Inversion”, Juha Karkkainen and Simon J. Puglisi, University of Helsinki and King's College London, Finland and Great Britain.

## **June 21: TUESDAY AFTERNOON**

*5 – 7 PM: Session (DATA COMMUNICATION I)*

***Session Chair: Francesco Palmieri, Seconda Università di Napoli, Italy***

- “The evolution of Mobile Network for delivering seamless high quality contents to the customers”, L. Licciardi, G. Romano, Telecom Italia, Italy (Invited Talk)
- “A Novel Approach To QoS Monitoring In The Cloud”, Luigi Romano and Danilo De Mari and Zbigniew Jerzak and Christof Fetzer, Epsilon srl and SAP AG and Dresden University of Technology, Italy and Germany
- “Overload control through multiprocessor load sharing in ATCA architecture”, Sergio Montagna and Maurizio Pignolo, Italtel, Italy.
- “Multithread Content Based File Chunking System in CPU-GPGPU Heterogeneous Architecture”, Zhi Tang and Youjip Won, Department of Electronics and Computer Engineering, Hanyang University, Seoul, Korea.

## **June 22: WEDNESDAY MORNING**

9,30 – 12,30: *Session (DATA COMPRESSION 2)*

*Session Chair: Cornel Constantinescu, IBM Almaden Research, U.S.A.*

- “Natural Language Compression per Blocks”, Petr Prochazka and Jan Holub, Faculty of Information Technology, Czech Technical University, Czech Republic.
- “Straight-line Programs: A Practical Test”, Ivan Burmistrov and Lesha Khvorost, Ural State University, Ekaterinburg, Russia.
- “Backwards Search in Context Bound Text Transformations”, Matthias Petri and Gonzalo Navarro and Simon J. Puglisi and J. Shane Culpepper, RMIT University , University of Chile, Australia and Chile.
  
- Coffee Break
  
- “Pattern matching on sparse suffix trees”, Roman Kolpakov and Gregory Kucherov and Tatiana Starikovskaya, Moscow State University, Universite Paris-Est & CNRS Marne-la-Vallée, Russia and France
- “Quick Estimation of Data Compression and Deduplication for Large Storage Systems”, Cornel Constantinescu and Maohua Lu, IBM Almaden Research, U.S.A..
- “Fast Implementation of Block Motion Estimation Algorithms in Video Encoders”, N.R.Koduri and M.E.Dlodlo and G. DeJager and K.L.Ferguson, University of Cape Town and CSIR ,South Africa.

## **June 22: WEDNESDAY AFTERNOON**

5 – 6 PM: Invited Talk:

Prof. Paul Vitanyi (CWI and U. of Amsterdam - The Netherlands)  
"Compression-based Similarity"

6 – 8 PM: Poster Session:

- “Data acquisition in electrophysiology with capacitive skin electrodes”, F. Babarada and C. Ravariu and E. Manea and C. Parvulescu, Politehnica University of Bucharest, ETTI, DCAE, Bucharest, Romania.
  
- “An educational platform for E-healthcare point and diagnosis”, Cristian Ravariu and Florin Babarada, Faculty of Electronics, BioNEC, "Politehnica" University of Bucharest, Romania.
  
- “Wireless Connectivity for Remote Objective Monitoring of Bio-Signals”, Aswin Aristama, and Wahab Almuhtadi, Faculty of Technology and Trades, Algonquin College, Ottawa, Ontario, Canada.
  
- “A patch for Squashfs to improve the search for the contents of compressed files: HSFS”, Nicola Corriero, University of Bari, Italy.

- “Toward a Flexible, Environmentally Conscious, On Demand High Performance Computing Service”, G.B. Barone and R. Bifulco and V. Boccia and D. Bottalico and L. Carracciuolo, Università di Napoli Federico II and CNR, Italy.
- “A review of DNA microarray image compression”, Miguel Hernandez-Cabronero and Ian Blanes and Joan Serra-Sagrista and Michael W. Marcellin, Department of Information and Communications Engineering, Universitat Autònoma de Barcelona, Barcelona, Spain. Centre National d'Etudes Spatiales (CNES), Toulouse, France. Department of Electrical and Computer Engineering, University of Arizona, Tucson, AZ, USA, Spain, France and USA
- “Evaluating new cluster setup on 10Gbit/s network to support the SuperB Computing Model”, Domenico del Prete, Silvio Pardi and Guido Russo, Università di Napoli Federico II and INFN Napoli, Italy.
- “CATALOGA: a software for semantic-based terminological data mining”, Annibale Elia and Alberto Postiglione and Mario Monteleone, Università degli Studi di Salerno, Italy.
- “Lossless Compression of Hyperspectral Imagery”, Raffaele Pizzolante, Università degli Studi di Salerno, Italy.
- “A Centralized, Extensible, Multilayer Monitoring System for Distributed Infrastructure: the Atlas Tier2-Naples experience”, Domenico del Prete, Silvio Pardi and Guido Russo, Università di Napoli Federico II and INFN Napoli, Italy.
- “CoTracks: a new lossy compression schema for tracking logs data based on multiparametric segmentation”, Walter Balzano and Maria Rosaria Del Sorbo, , Università di Napoli Federico II, Italy.
- “The evolution of datacenter networking technologies”, Antonio Scarfò, Maticmind Spa, Italy.

**9 PM: Gala Dinner.**

## **June 23: THURSDAY MORNING**

9,30 – 10,30 AM: Invited Talk:

Prof. James A. Storer (Brandeis University – U.S.A.)

"Applications of Compression to Content Based Image Retrieval and Object Recognition"

- Coffee Break

*10,30 AM– 1 PM: Session (DATA COMPRESSION 3)*

***Session Chair: Michael W. Marcellin, University of Arizona, U.S.A.***

- “Lempel-Ziv Data Compression on Parallel and Distributed Systems”, Sergio De Agostino, Università di Roma La Sapienza, Italy.
- “A Method to Ensure the Confidentiality of the Compressed Data”, M. Oguzhan Kulekci, National Research Institute of Electronics&Cryptology, Turkey.
- “Wavelet Trees: from Theory to Practice”, Roberto Grossi and Jeffrey Scott Vitter and Bojian Xu, Università di Pisa and The University of Kansas, Italy and U.S.A..
- “Review and implementation of the future CCSDS Recommendation for multi- and hyper-spectral lossless image coding”, Jose Enrique Sánchez and Estanislau Auge and Josep Santaló and Ian Blanes and Joan Serra-Sagristà and Aaron Kiely, Universitat Autònoma de Barcelona, Centre National d’Études Spatiales, NASA Jet Propulsion Laboratory, Spain and U.S.A..
- “Low complexity, high efficiency probability model for hyper-spectral image coding”, Francesc Auli-Llinas and Joan Bartrina-Rapesta and Joan Serra-Sagrista and Michael W. Marcellin, Universitat Autònoma de Barcelona, University of Arizona, Spain and U.S.A..

## **June 23: THURSDAY AFTERNOON**

*5 – 7 PM: Session (DATA PROCESSING)*

***Session Chair: Richard A. Olshen, Stanford University, U.S.A.***

- “Successive Normalization of Rectangular Arrays: Rates of Convergence”, Richard A. Olshen and Bala Rajaratnam, Stanford University, U.S.A..
- “On Some Hierarchical Type Classes and Their Entropy Functions”, John C. Kieffer, University of Minnesota, U.S.A.
- “Generalized witness sets”, Gerard Cohen and Sihem Mesnager, Telecom-Paristech CNRS and University of Paris VIII and University of Paris XIII, France.
- “Hardware platform for electrophysiological signals processing using a dynamic range compressor”, Florin Babarada and Cristian Ravariu and Arhip Janel, University Politehnica of Bucharest, Faculty Electronics Telecommunications and Information, Romania

## **June 24: FRIDAY MORNING**

*9,30 – 12: Session (DATA COMMUNICATION 2)*

*Session Chair: Wahab Almuhtadi, Algonquin College, Canada.*

- “Saving Energy in Data Center Infrastructures”, Sergio Ricciardi and Davide Careglio and German Santos-Boada and Josep Sole-Pareta and Ugo Fiore and Francesco Palmieri, Universitat Politècnica de Catalunya and Università di Napoli Federico II and Seconda Università di Napoli, Spain and Italy.
- “QoS Performance Testing of Multimedia Delivery over WiMAX Networks”, Douglas Reid and Anand Srinivasan and Wahab Almuhtadi, EION Wireless Inc., Ottawa and Algonquin College, Ottawa, Canada.
- “A Generic Intrusion Detection and Diagnoser System Based on Complex Event Processing”, Massimo Ficco and Luigi Romano, Seconda Università di Napoli (SUN), Università 'Parthenope' Napoli, Italy.
- “Intrusion Tolerant Approach for Denial of Service Attacks to Web Services”, Massimo Ficco and Massimiliano Rak, Seconda Università di Napoli (SUN), Napoli, Italy.
- “A Rate-allocation Based Multi-path Congestion Control Scheme for Event-Driven Wireless Sensor Networks”, Fang - Yie Leu and Shiuan - You Chiou , Department of Computer Science, TungHai University, Taichung, Taiwan.
- “A Batch Verification Scheme by using the Matrix-Detection Algorithm”, Yi-Li Huang, Chu-Hsing Lin, Fang-Yie Leu, Department of Computer Science, TungHai University, Taichung, Taiwan.

## **June 24: FRIDAY AFTERNOON**

3 - 5 PM: Social event.