

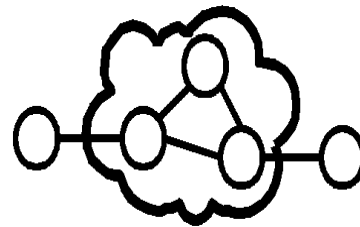


PROGRAM GUIDE



BWCCA-2011

*6th International
Conference on Broadband
and Wireless Computing,
Communication and
Applications*



3PGCIC-2011

*6th International Conference on
P2P, Parallel, Grid Cloud and
Internet Computing*

Organized by:



October 26th-28th, 2011

TABLE OF CONTENT

BWCCA-2011 Conference Organizing Committee.....	5
Track Areas Chairs.....	5
BWCCA-2011 CONFERENCE & WORKSHOPS PROGRAM	9
Wednesday, October 26, 2011.....	9
09:00 – 10:30 Single Session.....	9
BWCCA-2011/3PGCIC-2011 Opening & Keynote:.....	9
10:30 – 11:00 Coffee Break.....	9
11:00 – 12:30 Parallel Sessions.....	9
BWCCA-S1:	9
BWCCA-S2.....	10
W-CWECS-S1:	10
12:30 – 14:00 Lunch Break.....	10
14:00 – 15:30 Parallel Sessions.....	10
BWCCA-S3:	10
BWCCA-S4:	11
W-CWECS-S2:	11
16:00 – 17:30 Parallel Sessions.....	11
BWCCA-S5:	11
BWCCA-S6:	12
W-CWECS-S3:	12
19:00 – 21:00 Welcome Reception Party.....	12
Thursday, October 27, 2011.....	13
09:00 – 10:30 Parallel Sessions.....	13
BWCCA-S7:	13
BWCCA-S8:.....	13
W-NGWM-S1:.....	13
10:30 – 11:00 Coffee Break.....	13
11:00 – 12:30 Parallel Sessions	13
BWCCA-S9:	14
W-DCS-S1:.....	14
W-NGWMN-S2:	14
12:30 – 14:00 Lunch Break.....	14
14:00 – 15:30 Parallel Sessions.....	15
BWCCA-S10:	15
W-ASTSA-S1:	15
W-NTCCA-S1:	15

3PGCIC-2011/BWCCA-2011
UNIVERSITAT POLITÈCNICA DE CATALUNYA, BARCELONA, SPAIN

15:30 – 16:00 Coffee Break	15
16:00 – 17:30 Parallel Sessions	16
BWCCA-S11:.....	16
W-ASTSA-S2:	16
W-NTCCA-S2:	16
20:00-22:00 Conference Banquet.....	16
Friday, October 28, 2011	17
09:00 – 10:00 Single Session.....	17
BWCCA-2011/3PGCIC-2011 Keynote:	17
10:00 – 10:30 Coffee Break.....	17
10:30 – 12:00 Parallel Sessions.....	17
BWCCA-S12:	17
W-ISSE-S1:	17
12:00 – 13:30 Parallel Sessions.....	18
BWCCA-S13:	18
W-MAPWC-S1:	18
13:30 – 14:30 Lunch Break.....	18
3PGCIC-2011 Conference Organizing Committee.....	19
Track Areas Co-Chairs.....	19
3PGCIC-2011 CONFERENCE & WORKSHOPS PROGRAM.....	21
Wednesday, October 26, 2011.....	21
09:00 – 10:30 Single Session.....	21
BWCCA-2011/3PGCIC-2011 Opening & Keynote:	21
10:30 – 11:00 Coffee Break.....	21
11:00 – 12:30 Parallel Sessions.....	21
3PGCIC-S1:	21
W-SEDM-S1:	22
12:30 – 14:00 Lunch Break.....	22
14:00 – 15:30 Parallel Session.....	22
3PGCIC-S2: Security, Dependability and Reliability.....	22
W-BIDS-S1:	22
15:30 – 16:00 Coffee Break.....	23
16:00 – 17:30 Parallel Session.....	23
3PGCIC-S3:	23
W-MWVRTA-S1:	23
19:00 – 21:00 Welcome Reception Party.....	23
Thursday, October 27, 2011.....	24
09:00 – 10:30 Parallel Session.....	24
3PGCIC-S4:	24

3PGCIC-2011/BWCCA-2011
UNIVERSITAT POLITÈCNICA DE CATALUNYA, BARCELONA, SPAIN

W-SMDMS-S1:.....	24
10:30 – 11:00 Coffee break.....	24
11:00 – 12:30 Parallel Session.....	24
3PGCIC-S5:	24
W-SMDMS-S2:	25
12:30 – 14:00 Lunch Break.....	25
14:00 – 15:30 Parallel Session.....	25
3PGCIC-S6:	25
W-DCG-AI-S1:	25
15:30 – 16:00 Coffee Break.....	26
16:00 – 17:30 Parallel Sessions.....	26
3PGCIC-S7:	26
W-MiDiS-S1:	26
20:00-22:00 Conference Banquet.....	26
09:00 – 10:00 Single Session.....	27
BWCCA-2011/3PGCIC-2011 Keynote:	27
10:00 – 10:30 Coffee Break.....	27
10:30 – 12:00 Parallel Session.....	27
3PGCIC-S8:	27
W-SMECS-S1:	27
12:00-13:30 Parallel Sessions.....	29
W-MiDiS-S2:.....	28
W-SMECS-S2:	28
13:30 – 14:30 Lunch Break.....	28

BWCCA-2011 Conference Organizing Committee

Honorary Chair

Makoto Takizawa, Seikei University, Japan

General Co-Chairs

Leonard Barolli, Fukuoka Institute of Technology, Japan

Fatos Xhafa, Technical University of Catalonia, Spain

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Vidyasagar Potdar, Curtin University, Australia

Web Administrator

Joan Arnedo Moreno, Open University of Catalonia, Spain

Track Areas Chairs

1. Wireless Networks

Ray-Guang Cheng, National Taiwan University of Science and Technology, Taiwan

Tetsuya Shigeyasu, Hiroshima International University, Japan

2. Ad-Hoc, Sensor, Mesh Networks

Akimitsu Kanzaki, Osaka University, Japan

Dritan Nace, Universite de Technologie de Compiègne, France

3. Ubiquitous and Pervasive Computing

Feilong Tang, Shanghai Jiao Tong University, China

Tomoki Yoshihisa, Osaka University, Japan

4. Multimedia and Web Applications

Kosuke Takano, Kanagawa Institute of Technology, Japan

Roberto Pirrone, University of Palermo, Italy

5. Network Security, Trust and Privacy

Stephen Neville, University of Victoria, Canada
Josep Domingo-Ferrer, Universitat Rovira i Virgili, Spain

6. Mobile, Vehicular and Cellular Networks

Phone Lin, National Taiwan University, Taiwan
Lin Cai, University of Victoria, Canada

7. Distributed Algorithms and Systems

Farshad Khunjush, Shiraz University, Iran
Kaveh Jokar Deris, Syracuse University, USA

8. Network Protocols and Network Performance Analysis

Takuo Nakashima, Tokai University, Japan
Alfonso Urso, CNR-ICAR, Italy

9. Intelligent Networking and Embedded Systems

Salvatore Vitabile, University of Palermo, Italy
Watheq El-Kharashi, Ain Shams University, Egypt

10. Wireless Home Automation Technologies

Wei Li, Victoria University of Wellington, New Zealand
Vidyasagar Potdar, Curtin University, Australia

BWCCA-2011/ 3PGCIC-2011 Opening & Keynote

**Mario Köppen, Network Design and Research Center,
Kyushu Institute of Technology, Japan**

**Fairness, Preference, and Dominance - Perspectives of Relational
Mathematics in Network Design and Control**

Abstract

Relational mathematics, as it is studied in mathematical economics and social choice theory, provides a rich and general framework and appears to be a natural and direct way to paraphrase optimization goals, to represent user preferences, to justify fairness criteria, or to value utility. In this talk, we will focus on the specific application aspects of formal relations in network design and control problems. The talk will have three main parts. In the first part, we want to present a suite of new relations that are able to represent fairness as a mediator between user preference and network infrastructure dominance. Starting with the "classical" fairness relations maxmin fairness, proportional fairness and lexmin, we can recover their mutual relationships and their design flexibility in order to define further relations, with regard to e.g. multi-fairness, ordered fairness, self-weighted fairness, grouped fairness, and fuzzy fairness. In the second part, we want to illustrate and demonstrate the application of these relations for basic network design and control problems, esp. routing path selection, congestion control, wireless channel allocation, and relaying. The third part is concerned with the tractability of related problems, and we will present generic approaches by meta-heuristic algorithms, esp. algorithms obtained from suitable modifications of evolutionary multi-objective optimization algorithms that can cope with a broad spectrum of occurring search and approximation problems. We will conclude with the outlook on a concept of generalized optimization.

BWCCA-2011/ 3PGCIC-2011 Keynote

Keynote Talk from Industry

Jordi Augusto

**General Manager at Aerospace Research & Technology Centre
Barcelona, SPAIN**

Why innovate? Where innovate?

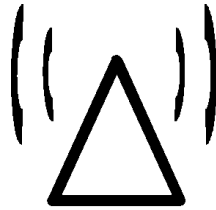
Abstract

Innovation is the way through for the humans to improve its life, since we left the trees. And this is the way still: no innovation succeeds without improve our lives. Time ago, you could get a "barony" from the king; today, the power you can get depends on the benefits you can provide to your customers. And this is not a forever's power: there are others working hard to offer greater benefits to the market, and get your chair.

And this is not a tale. Innovation, in terms of product, and even more in terms of productivity, is always behind the economic health of a company or a country. Forget erroneous ideas about workers costs and its impact on economic localization. We don't buy in China "work intensive products", we buy "their" more capital intensive products. In technical terms, we buy the products with the higher "relative" productivity. Holland exports potatoes and tomatoes, and Holland is not a cheap workers place. They also exports flowers, as the Colombian does. In both cases, flowers have the higher productivity in their respective countries.

So, let's welcome the good news: tomorrow is decided every day, and everybody is invited to participate innovating; the global competition starts at local level, with the "higher productivity companies" taking part of the champion league.

In this talk we will focus on innovation in the field of aerospace technology and will bring the experience of the Aerospace Research & Technology Center of Catalonia (CTAE) from several research and development projects on positioning and navigation.



BWCCA-2011

*Sixth International Conference on Broadband and Wireless Computing,
Communication and Applications*

BWCCA-2011 CONFERENCE & WORKSHOPS PROGRAM

Wednesday, October 26, 2011

09:00 – 10:30 Single Session

**BWCCA-2011/3PGCIC-2011 Opening & Keynote: Prof. Mario Köppen,
Kyushu Institute of Technology, Japan**

“Fairness, Preference, and Dominance - Perspectives of Relational Mathematics in Network Design and Control”

10:30 – 11:00 Coffee Break

11:00 – 12:30 Parallel Sessions

BWCCA-S1: Vehicular, Mesh and P2P Networks– Room BWCCA 1

Chair: Bhed Bahadur Bista, Iwate Prefectural University, Japan

1.VANET Simulators: A Survey on Mobility and Routing Protocols

Evjola Spaho, Leonard Barolli, Gjergji Mino, Fatos Xhafa, Vladi Kolic

2.General Active Position Detectors Protect VANET Security

Gongjun Yan, Bhed Bahadur Bista, Danda B. Rawat, Earl F. Shaner

3.Effects of Mutation and Crossover in Genetic Algorithms for Node Placement in WMNs
Considering Giant Component Parameter

Admir Barolli, Tetsuya Oda, Evjola Spaho, Fatos Xhafa, Leonard Barolli, Makoto Takizawa

4.E-AODV for Wireless Mesh Networks and Its Performance Evaluation

Amrita Bose Paul, Shantanu Konwar, Upola Gogoi, Sukumar Nandi, Santosh Biswas

BWCCA-S2: Algorithms and Systems – Room BWCCA 2

Chair: Farookh Khadeer Hussain, Curtin University, Australia

1. Distributed Search Engine for an IaaS Based Cloud

Yuuta Ichikawa, Minoru Uehara

2. A Hybrid TOA/AOA Hardware-Oriented Algorithm for Mobile Positioning

Amir Hossein Akhavan Salmasi, Evgueni Doukhritch, Muhammed Salamah

3. Evaluations of Stateful NMR with Byzantine Failures

Minoru Uehara

4. Rule-Based Business Policies Specification, Reasoning and Integration for Business Process Model Extraction

Naeem Khalid Janjua, Farookh Khadeer Hussain

W-CWECS-S1: Steganography, Cryptography and DoS Attacs – Room BWCCA 3

Chair: Fang-Yie Leu, Tunghai University, Taiwan

1. Steganography and Secure Communication on Online Social Networks and Online Photo Sharing

Aniello Castiglione, Bonaventura D'Alessio, Alfredo De_Santis

2. Energy Consumption Analysis for Cryptographic Algorithms with Different Clocks on Smart Cards in Mobile Devices

Chu-Hsing Lin, Guan-Han Chen, Shih-Pei Chien

3. Evaluating Network-Based DoS Attacks under the Energy Consumption Perspective: New Security Issues in the Coming Green ICT Area

Francesco Palmieri, Sergio Ricciardi, Ugo Fiore

12:30 – 14:00 Lunch Break

14:00 – 15:30 Parallel Sessions

BWCCA-S3: Multimedia Systems – Room BWCCA 1

Chair: Antonio Gentile, University of Palermo, Italy

1. A Multichannel Information System to Build and Deliver Rich User-Experiences in Exhibits and Museums

*Antonio Gentile, Salvatore Andolina, Antonio Massara, Dario Pirrone, Giuseppe Russo,
Antonella Santangelo, Eleonora Trumello, Salvatore Sorce*

2. An Interactive Music Learning System in Ensemble Performance Class

Kosuke Takano, Shiori Sasaki

3. Motion Tracking and Processing for Multimedia Sport E-Learning

Kin Fun Li, Kosuke Takano, Mark Graham Johnson

BWCCA-S4: Sensor Networks – Room BWCCA 2

Chair: Leonard Barolli, Fukuoka Institute of Technology, Japan

1.A Simulation System for Multi-mobile Sinks in Wireless Sensor Networks Considering TwoRayGround and Shadowing Propagation Models

Tao Yang, Gjergji Mino, Leonard Barolli, Arjan Durrresi, Fatos Xhafa

2.MAMAC: A Multi-channel Asynchronous MAC Protocol for Wireless Sensor Networks

GholamHossein EkbataniFard, Reza Monsefi

3.A MAC Protocol for Power Reduction in Wireless Sensor Networks Based on Load Estimation

Akio Koyama, Ryoma Watanabe, Leonard Barolli

4.Examination of Data Transmission Adapting to Density of Sensor in Triage Network

Takuya Saito, Hiroki Tamura, Yuto Toguchi, Hiroshi Shigeno

W-CWECS-S2: Forensics, Anti-Forensics and Digital Evidences – Room BWCCA 3

Chair: Aniello Castiglione, University of Salerno, Italy

1.A Novel Anti-forensics Technique for the Android OS

Pietro Albano, Aniello Castiglione, Giuseppe Cattaneo, Alfredo De_Santis

2.Research of Digital Evidence Forensics Standard Operating Procedure with Comparison and Analysis Based on Smart Phone

I-Long Lin, Han-Chieh Chao, Shih-Hao Peng

3.Automatic, Selective and Secure Deletion of Digital Evidence

Aniello Castiglione, Giuseppe Cattaneo, Giancarlo De_Maio, Alfredo De_Santis

4.Hash-Algorithms Output for Digital Evidence in Computer Forensics

Hung-Jui Ke, Jonathan Liu, Shih-Jeng Wang, Dushyant Goyal

15:30 – 16:00 Coffee Break

16:00 – 17:30 Parallel Sessions

BWCCA-S5: Communication Systems – Room BWCCA 1

Chair: Kin Fun Li, University of Victoria, Canada

1.Design of T-Shaped Slot Antenna for UWB Communications Systems

Satya Kumar. V, Anup Kumar Gogoi

2.Service Specific Queue Sorting and Scheduling Algorithm for OFDMA-Based LTE-Advanced Networks. *R. Kausar, Y. Chen, K.K. Chai*

3.An Iterative Receiver for Fast Fading Channels Using Two Kalman Filters

Alireza Movahedian, Michael McGuire

BWCCA-S6: Social Networking – Room BWCCA 2

Chair: Minoru Uehara, Toyo University, Japan

1. Lessons Learned from Online Social Networking of Physical Things

Andreas Kamilaris, Diomidis Papadiomidous, Andreas Pitsillides

2. 150 Digit. Integrating 3D Visit and Social Functions into a Web 3.0 Learning-Oriented Approach

Rossana Damiano, Cristina Gena, Vincenzo Lombardo, Fabrizio Nunnari, Alessandra Suppini, Andrea Crevola

3. Context-Aware Security model for Social Network Service

Hyundong Lee, Mokdong Chung

4. Enhancing Personal Efficiency with Pervasive Services and Wearable Devices

Mauro Migliardi, Marco Gaudina, Andrea Brogni

W-CWECS-S3: Systems Applications and Grids– Room BWCCA 3

Chair: Fang-Yie Leu, Tunghai University, Taiwan

1. A Secure RFID Deactivation/Activation Mechanism for Customer Service and Consumer Shopping

Yu-Yi Chen, Zhen-Jie Qiu, Jun-Chao Lu, Jinn-Ke Jan

2. A Relational Compound Collaborative Filtering Recommendation System

Chiu-Ching Tuan, Chi-Fu Hung, Kuan-Wei Tseng

3. Improving Data Grids Performance by Using Popular File Replicate First Algorithm

Fang-Yie Leu, Ming-Chang Lee, Jia-Chun Lin

4. An Interface Design Secure Measurement Model for Improving Web App Security

Sen-Tarnng Lai

19:00 – 21:00 Welcome Reception Party

Thursday, October 27, 2011

09:00 – 10:30 Parallel Sessions

BWCCA-S7: Ad-hoc Networks and MANETs– Room BWCCA 1

Chair: Noriki Uchida, Saitama Institute of Technology, Japan

1. Performance Evaluation of OLSR and BATMAN Protocols for Vertical Topology Using Indoor Stairs Testbed

Elis Kulla, Makoto Ikeda, Masahiro Hiyama, Leonard Barolli, Rozeta Miho

2. On Assessing the Impact of Jamming Strategies on the Behavior of DYMO-Based MANETs

Deepali Arora, Eamon Millman, Stephen W. Neville

3. User Policy Based Link and Route Selection Methods for Never Die Network

Noriki Uchida, Kazuo Takahata, Yoshitaka Shibata

BWCCA-S8: Network Protocols – Room BWCCA 2

Chair: Makoto Takizawa, Seikei University, Japan

1. A New TCP Control Method for Guaranteeing Throughput over High Speed Satellite Links

Hiroyasu Obata, Kazuya Tamehiro, Kenji Ishida

2. Evaluation of a Quorum-Based Synchronization Protocol

Tadateru Ohkawara, Ailixier Aikebaier, Tomoya Enokido, Makoto Takizawa

3. Wireless HART TDMA Protocol Performance Evaluation Using Response Surface Methodology

Osama Khader, Andreas Willig, Adam Wolisz

W-NGWM-S1: Wireless Networks Performance Evaluation – Room BWCCA 3

Chair: Hsing-Chung Chen, Asia University, Taiwan

1. Optimal Performance Study of IEEE 802.11 DCF with Contention Window

Chien-Erh Weng, Chun-Yin Chen, Chiung-Hsing Chen, Chien-Hunh Chen

2. Performance of Adaptive Parallel Interference Cancellation for OFDM Mobile Communication Systems

Yung-Fa Huang, Tan-Hsu Tan, Hsing-Chung Chen, Cheng-Min Yeh

10:30 – 11:00 Coffee Break

11:00 – 12:30 Parallel Sessions

BWCCA-S9: Security- Room BWCCA 1

Chair: Tomoyuki Nagase, Hirosaki University, Japan

1. Multi-device Key Management Using Visual Side Channels in Pervasive Computing Environments *Leonid Batyuk, Seyit Ahmet Camtepe, Sahin Albayrak*

2. Hardware Implementation of Prearranged Tables Based Modular Inversion

Tsutomu Ishida, Tomoyuki Nagase, Yoshio Yoshioka

3. Building Trust for λ -Congenial Secret Groups

Di Ma, Claudio Soriente

4. Digital Signature-Based Secure Communication in Cognitive Radio Networks

Sazia Parvin, Farookh Khadeer Hussain

W-DCS-S1: Fault Detection and Diagnosis – Room BWCCA 2

Chair: Andrei Doncescu, LAAS, CNRS Toulouse, France

1. Diagnosis of Automotive Systems Based on Logfile Similarity

N. Kabbaj, A. Doncescu

2. Aircraft Actuator Fault Detector Based on Non Linear Inverse Dynamics

Lunlong Zhong, Andrei Doncescu, Félix Mora-Camino

3. Design and Implementation of an Embedded System for Ambulatory Cardiac Monitoring
El Mimouni El_Hassan, Karim Mohammed

4. Fault Detection and Isolation Using Fuzzy-ARTMAP Classification and Conflict Intersection

Mourad Benkaci, Andrei Doncescu, Bruno Jammes

5. Modelling of Submarine Navigation by Nonmonotonic Logic

Isabelle Toulgoat, Pierre Siegel, Andrei Doncescu

W-NGWMN-S2: Network Architectures and Protocols – Room BWCCA 3

Chair: Hsing-Chung Chen, Asia University, Taiwan

1. An Online Evolutionary Programming Method for Parameters of Wireless Networks

Jason B. Ernst, Joseph Alexander Brown

2. Node's Power Source Type Identification in Wireless Sensor Networks

Konstantin Mikhaylov, Jouni Tervonen

3. An Integrated Two-Tier Multicast-Agent Architecture for All-IP Multicast Transport Services
Chih-Chao Wen, Chi-Ju Chiu, Cheng-Shong Wu, Hui-Kai Su, Yuan-Sun Chu

4. A Time Constraint Three-Party Encrypted Key Exchange Protocol

Hsing-Chung Chen, Syuan-Zong Lin, Yung-Fa Huang, Hsien-Yun Chuang

12:30 – 14:00 Lunch Break

14:00 – 15:30 Parallel Sessions

BWCCA-S10: Wireless and Radio Networks – Room BWCCA 1

Chair: Sang Soo Yeo, Mokwon University, Korea

1. Kernel-Based Channel Gain Estimation for Dynamic Spectrum Access in Cognitive Radio Networks *Po-Chiang Lin, Tsung-Nan Lin*

2. Multi-hop Wireless Networks Performance Evaluation via NS-3 Simulator

Makoto Ikeda, Masahiro Hiyama, Elis Kulla, Leonard Barolli, Makoto Takizawa

3. A Study on the Performance Improvement of Impulse-Radio System in Multiple Interference Environment

Yang Sun Lee, Sang Soo Yeo, Jong Hyuk Park, Leonard Barolli

4. Degree Distribution of Unit Disk Graphs with Uniformly Deployed Nodes on a Rectangular Surface

Renato Ferrero, Filippo Gandino

W-ASTSA-S1: Sensors and Applications – Room BWCCA 2

Chair: Bhed Bahadur Bista, Iwate Prefectural University, Japan

1. Indoor Location Fingerprinting Based on Data Reduction

Dragan Kukolj, Marina Vuckovic, Szilveszter Pletl

2. Performance Analysis of Underwater Swarm Sensor Networks

Marco Tabacchiera, Samuela Persia, Chiara Lodovisi, Silvello Betti

3. Enhancing Sensor Network Security by Reducing Radio-Wave Leakage

Nan Meng, Jiahong Wang, Eiichiro Kodama, Toyoo Takata

W-NTCCA-S1: Network Application and Security – Room BWCCA 3

Chair: Takuo Nakashima, Tokai University, Japan

1. Visualization for Activity Information Sharing System Using Self-Organizing Map

Yuichi Hattori, Sozo Inoue, Go Hirakawa

2. A Correction Algorithm for Stereo Matching with Web Cameras

Ningping Sun, Hiroshi Nagaoka, Takuya Shigemoto

3. An Anomaly Detection System Based on Chi-Square Method with Dynamic BIN Algorithm

Shunsuke Oshima, Yusuke Ichimura, Takuo Nakashima, Toshinori Sueyoshi

15:30 – 16:00 Coffee Break

16:00 – 17:30 Parallel Sessions

BWCCA-S11: Energy Efficient and Power Management – Room BWCCA 1

Chair: Tomoya Enokido, Rissho University, Japan

1. Energy Efficient Distributed Systems for Storage-Based Applications

Takuro Inoue, Ailixier Aikebaier, Tomoya Enokido, Makoto Takizawa

2. Power Management for SVC Video over Wireless Networks

C. Bouras, S. Charalambides, K. Stamos, S. Stroumpis, G. Zaoudis

3. Improving of EPCLB Algorithm for Reducing the Overhead of a Load Balancer

Tomoya Enokido, Ailixier Aikebaier, Makoto Takizawa

W-ASTSA-S2: Protocols and Algorithms – Room BWCCA 2

Chair: Bhed Bahadur Bista, Iwate Prefectural University, Japan

1. Probabilistic Target Coverage in Wireless Sensor Networks

Jau-Wu Huang, Chia-Mao Hung, Kai-Chao Yang, Jia-Shung Wang

2. Wireless Sensor Networks Energy Optimization Using User Location Information in Smart Homes

Harri Pensas, Miika Valtonen, Jukka Vanhala

3. Model and Placement Optimization of a Sky Surveillance Visual Sensor Network

Naeem Ahmad, Najeem Lawal, Mattias O'Nils, Bengt Oelmann, Muhammad Imran, Khursheed Khursheed

W-NTCCA-S2: System and Network Performance – Room BWCCA 3

Chair: Takuo Nakashima, Tokai University, Japan

1. Mint: Booting Multiple Linux Kernels on a Multicore Processor

Yoshinari Nomura, Ryota Senzaki, Daiki Nakahara, Hiroshi Ushio, Tetsuya Kataoka, Hideo Taniguchi

2. Performance of the MPI Based File Share System

Daisuke Tsukamoto, Takuo Nakashima

3. Active Queue Management with the Stable Unit Average Calculation

Fumihiko Nakamura, Takuo Nakashima

20:00-22:00 Conference Banquet

Friday, October 28, 2011

09:00 – 10:00 Single Session

BWCCA-2011/3PGCIC-2011 Keynote: Jordi Angusto, General Manager at Aerospace Research & Technology Centre (CTAE), Spain

“Why innovate? Where innovate?”

10:00 – 10:30 Coffee Break

10:30 – 12:00 Parallel Sessions

BWCCA-S12: Network Applications and Algorithms – Room BWCCA 1

Chair: Leonard Barolli, Fukuoka Institute of Technology, Japan

1. Wireless Sensing System for Healthcare Monitoring Thermal Physiological State and Recognizing Behavior

Chika Sugimoto, Ryuji Kohno

2. Measurement of LowPAN Network Coexistence with Home Microwave Appliances in Laboratory and Home Environments

Milan Simek, Michal Fuchs, Lubomir Mraz, Patrik Moravek, Miroslav Botta

3. A New Scheduling Scheme for Voice Awareness in 3G LTE

R. Musabe, H. Larijani, B.G. Stewart, T. Boutaleb

W-ISSE-S1: Bio-Sensing, Processing, Application and Networking – Room BWCCA 2

Chair: Chi-Yi Lin, Tamkang University, Taiwan

1. Computer Vision Techniques for Hidden Conditional Random Field-Based Mandarin Phonetic Symbols I Recognition

Chien-Cheng Lee, Yi-Fang Li

2. A RFID-Based Personal Navigation System for Multi-story Indoor Environments

Chi-Yi Lin, Chih-Yuan Chang, Hui-Huang Hsu

3. Accelerometer Array and Method to Obtain a 3D Representation of the Spine Posture

Agustín López-Quintana, Juan Carlos Tejero-Calado, Fernando Vidal-Verdú

4. A Survey on Home Telemedicine

Kin Fun Li, Wei Li

5. Tele-Auscultation System

Christian McMechan, Irina Morozov, Aaron Patten, Poman So

12:00 – 13:30 Parallel Sessions

BWCCA-S13: Modulation, Decoding and Optimization– Room BWCCA 1

Chair: Antonio Gentile, University of Palermo, Italy

1.Improvement of Concatenated Decoding Using Bit-Stuffing

Natasa Zivic

2.Mixed Chromatic Dispersion Compensation Methods for Combined HDWDM Systems

Vjaceslavs Bobrovs, Aleksejs Udalcovs, Sandis Spolitis, Oskars Ozolins, Girts Ivanovs

3.Finite Field Multiplication Using Reordered Normal Basis Multiplier

Fayez Gebali, Turki Al-Somani

W-MAPWC-S1: Wireless Communication Algorithms and Systems – Room BWCCA 2

Chair: Kazunori Uchida, Fukuoka Institute of Technology, Japan

1.Some Trials to Suppress Unnecessary Resonance in Photonic Crystal Cavity Structure

Yongmei Zhang, Hiroyuki Terashima, Daichi Ogata, Hiroshi Maeda

2.Doppler Shift Distribution of Target Moving above Random Rough Surface

Kazunori Uchida, Junichi Honda, Shunsuke Nakashima

3.Characteristics of Diffracted Waves: A Comparison Study for Different Wedge Shapes and Materials

Jiro Iwashige, Leonard Barolli, Yuki Isayama, Ryo Nagao, Katsuki Hayashi

4.Investigation of Channel Usage and Packetloss in a MANET Testbed for Stairs Indoor Scenarios

Masahiro Hiyama, Elis Kulla, Makoto Ikeda, Leonard Barolli

13:30 – 14:30 Lunch Break

3PGCIC-2011 Conference Organizing Committee

Honorary Co-Chair

Makoto Takizawa, Seikei University, Japan

General Co-Chairs

Fatos Xhafa, Technical University of Catalonia, Spain
Leonard Barolli, Fukuoka Institute of Technology, Japan

Program Committee Co-Chairs

Joanna Kolodziej, University of Bielsko-Biala, Poland
Samee U. Khan, North Dakota State University, USA

Workshop Chair

Hiroaki Nishino, Oita University, Japan

Web Administrator

Joan Arnedo Moreno, Open University of Catalonia, Spain

Track Areas Co-Chairs

1. High Performance and Scalable Computing

Horacio Gonzalez-Velez, Robert Gordon University, Aberdeen, UK
Rong Ge, Marquette University, USA

2. Cluster and Grid Computing

Lizhe Wang, Indiana University, USA
Laurent Lefevre, INRIA, France

3. P2P, Ad-Hoc and Mobile Networking

Cheng Fu, Nanyang Technological University, Singapore
Juan Carlos Burguillo-Rial, University of Vigo, Spain

4. Data Intensive Computing, Data Mining

Piotr Synak, Infobright Inc. & Polish-Japanese Inst. of Information Technology, Poland
Fayez Gebali, University of Victoria, Canada

5. Groupware and Collaborative Systems

Gregoire Danoy, University of Luxembourg, Luxembourg

Richard Hill, University of Derby, UK

6. Semantic Web and Grid Services

Juan Li, North Dakota State University, USA

Aleksander Byrski, AGH University of Science and Technology, Poland

7. Virtual Organizations, Enterprise and Cloud Computing

Nik Bessis, University of Derby, UK

Martin G. Jaatun, SINTEF, Norway

8. Security, Dependability and Reliability in Grids and Clouds

Wendy Hui Wang, Stevens Institute of Technology, Hoboken, USA

Neal N. Xiong, Georgia State University, USA

9. Multimedia Applications

Yoshishiro Okada, Kyushu University, Japan

Juggapong Natwichai, Chiang Mai University, Thailand

10. Parallel and Distributed Computing in Economics

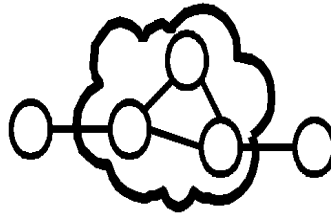
Tuan Ahn Trinh, Budapest University of Technology and Economics, Hungary

Pawel Pawlewski, Poznan University of Technology, Poland

11. Global Optimization in Large –Scale Distributed Systems

Bernabe Dorronsoro, University of Luxembourg, Luxembourg

Tomas Maul, University of Nottingham, Malaysia Campus, Malaysia



*Sixth International Conference on P2P, Parallel, Grid, Cloud and
Internet Computing*

3PGCIC-2011 CONFERENCE & WORKSHOPS PROGRAM

Wednesday, October 26, 2011

09:00 – 10:30 Single Session

**BWCCA-2011/3PGCIC-2011 Opening & Keynote: Keynote: Prof. Mario Köppen,
*Kyushu Institute of Technology, Japan***

“Fairness, Preference, and Dominance - Perspectives of Relational Mathematics in Network
Design and Control”

10:30 – 11:00 Coffee Break

11:00 – 12:30 Parallel Sessions

3PGCIC-S1: Grid Computing – Room 3PGCIC 1

Chair: Joanna Kolodziej, University of Bielsko Biala, Poland

1.A Decentralized Resource Broker Model with Authorization and Authentication Based on
Multiparty Key Agreement Protocol in Data Grids

Wen-Chung Chiang, Chao-Tung Yang, Hsiu-Hsia Lin

2.Genetic Algorithms for Energy-Aware Scheduling in Computational Grids

Joanna Kolodziej, Samee Ullah Khan, Fatos Xhafa

3.GridFactory: Distributed Computing on Ephemeral Resources

Frederik Orellana, Marko Niinimaki

4.Provenance Management for Neuroimaging Workflows in neuGrid

*Ashiq Anjum, Nik Bessis, Richard Hill, Richard McClatchey, Irfan Habib, Kamran Soomro, Peter
Bloodsworth, Andrew Branson*

W-SEDM-S1: Smart Environments for Disaster Management – Room 3PGCIC 2

Chair: Nik Bessis, University of Derby, UK

1. Multi-agent Approach for Disaster Management

Elton Domnori, Giacomo Cabri, Letizia Leonardi

2. Electronic Triage System: Casualties Monitoring System in the Disaster Scene

K. Sakanushi, T. Hieda, T. Shiraishi, Y. Ode, Y. Takeuchi, M. Imai, T. Higashino, H. Tanaka

3. A Situation-Based Service Composition Model for Dynamic Environments

Hien Le

4. Towards an Integrated Multi-hazard Prevention Assessment for Community Threats

Eleana Asimakopoulou, Nik Bessis

12:30 – 14:00 Lunch Break

14:00 – 15:30 Parallel Sessions

3PGCIC-S2: Security, Dependability and Reliability– Room 3PGCIC 1

Chair: Richard Hill, University of Derby, UK

1. Distributed Placement of Replicas in Hierarchical Data Grids with User and System QoS Constraints

Mohammad Shorfuzzaman, Peter Graham, Rasit Eskicioglu

2. A New Dynamic Replication Algorithm for Hierarchy Networks in Data Grid

N. Mansouri, Gh. Dastghaibifard

3. Suitability of Cloud Computing for Scientific Data Analyzing Applications; An Empirical Study

Alireza Angabini, Nasser Yazdani, Thomas Mundt, Fatemeh Hassani

4. Improving Query Delay in Private Web Search

Cristina Romero-Tris, Alexandre Viejo, Jordi Castellà-Roca

W-BIDS-S1: Business, Intelligent and Distributed Systems – Room 3PGCIC 1

Chair: Kin Fun Li, University of Victoria, Canada

1. Enabling Business Rules for Concurrent Transactions

Hendrik Decker, Rubén de Juan-Marín

2. An Efficient Schema Shared Approach for Cloud Based Multitenant Database with Authentication and Authorization Framework

Sanjeev Pippal, Vishu Sharma, Shakti Mishra, D.S. Kushwaha

3. The Design and Implementation of a Business Intelligence Recommender

Kin Fun Li, Graham Campbell, Allan Kumka, Chris Nesmith

15:30 – 16:00 Coffee Break

16:00 – 17:30 Parallel Sessions

3PGCIC-S3: Virtual Organizations, Enterprise and Cloud Computing-Room 3PGCIC 1

Chair: Fatos Xhafa, Technical University of Catalonia, Spain

1. Towards Inter-cloud Schedulers: A Survey of Meta-scheduling Approaches

Stelios Sotiriadis, Nik Bessis, Nick Antonopoulos

2. Evaluating the Robustness of Publish/Subscribe Systems

Tobias R. Mayer, Lionel Brunie, David Coquil, Harald Kosch

3. Integration of Wireless Hand-Held Devices with the Cloud Architecture: Security and Privacy Issues

Muhammad Sarwar Jahan Morshed, Mohammad Maynul Islam, Mohammad Kamrul Huq, Md. Shahadat Hossain, Mohammad Ariful Basher

4. A P2P-Based Incremental Web Ranking Algorithm

Sumalee Sangamuang, Pruet Boonma, Juggapong Natwichai

W-MWVRTA-S1: Multimedia Systems and Applications - Room 3PGCIC 2

Chair: Leonard Barolli, Fukuoka Institute of Technology, Japan

1. A Preliminary Evaluation for User Interfaces According to User Computer Skill and Computer Specifications

Shinichi Inenaga, Kaoru Sugita, Tetsushi Oka, Masao Yokota

2. Experiment on Multi-video Transmission with Multipoint Tiled Display Wall

Yasuo Ebara

3. A Study on Design of Disaster Information - A Proposal of Coordinate System for Supply and Demand on Disaster Recovery

Daisuke Endo, Kaoru Sugita

4. Proposal of Overlay Cloud Computing System by Virtual Autonomous Network Configuration

Noriki Uchida, Kazuo Takahata, Yoshitaka Shibata

19:00 – 21:00 Welcome Reception Party

Thursday, October 27, 2011

09:00 – 10:30 Parallel Sessions

3PGCIC-S4: Data Intensive Computing and Data Mining - Room 3PGCIC 1

Chair: Kin Fun Li, University of Victoria, Canada

1. Hybrid Architecture for Intensive Data Analysis

O. Terzo, L. Mossucca, P. Ruiu, G. Caragnano

2. FPGA-Based Reconfigurable Hardware for Compute Intensive Data Mining Applications

Darshika G. Perera, Kin Fun Li

3. The Web Information Extraction for Update Summarization Based on Shallow Parsing

Min Peng, Xiaoxiao Ma, Ye Tian, Yang Ming, Hua Long, Quanchen Lin, Xiaojun Xia

W-SMDMS-S1: Stream Delivery and Processing– Room 3PGCIC 2

Chair: Tomoki Yoshihisa, Osaka University, Japan

1. Efficient Invocation of Transaction Sequences Triggered by Data Streams

Masafumi Oyamada, Hideyuki Kawashima, Hiroyuki Kitagawa

2. A Video Manager for Relational Stream Processing Systems

Tsubasa Takahashi, Hideyuki Kawasima, Hiroyuki Kitagawa

3. A Scheduling Method for Selective Contents Broadcasting with Fast-Forwarding

Yusuke Gotoh, Tomoki Yoshihisa, Hideo Taniguchi, Masanori Kanazawa, Wenny Rahayu, Yi-Ping Phoebe Chen

4. Video Transmission in Multicast Networks Using Network Coding

César Cabrera-Medina, Francisco de Asís López-Fuentes

10:30 – 11:00 Coffee break

11:00 – 12:30 Parallel Sessions

3PGCIC-S5: Web Applications and Performance Evaluations– Room 3PGCIC 1

Chair: Heinz Kredel, University of Mannheim, Germany

1. Performance Analysis and Performance Modeling of Web-Applications

Heinz Kredel, Hans-Günther Kruse, Ingo Ott

2. Private Audio Streaming for an Automated Phone Assistance System

Juan Vera-del-Campo, Ana Gómez-Muro, Miguel Soriano

3. A New Approach to Grid Computing for Distributed Rendering

Carlos Glez-Morcillo, D. Vallejo, J. Albusac, L. Jiménez, J.J. Castro-Sanchez

4. Low-Cost High Performance Infrastructure for Domain-Decomposition Methods in Computational Electromagnetics

Oliver Terzo, P. Ruiu, L. Mossucca, G. Caragnano, M.A. Francavilla, F. Vipiana

W-SMDMS-S2: Video Delivery Systems – Room 3PGCIC 2

Chair: Tomoki Yoshihisa, Osaka University, Japan

1. An Energy Saving Scheme on Storage Systems for Video Delivery Services

Yousuke Watanabe, Haruo Yokota

2. P2P Live Streaming System with Content Recommendation Based on Users' Preference

Yusuke Hirota, Takayuki Hisada, Hideki Tode, Koso Murakami

3. Photographable TV: An Interactive Internet Live Broadcasting System with a High-Quality Snapshot Function

Yoshia Saito, Yuko Murayama

12:30 – 14:00 Lunch Break

14:00 – 15:30 Parallel Sessions

3PGCIC-S6: Grid Scheduling – Room 3PGCIC 1

Chair: Fatos Xhafa, Technical University of Catalonia, Spain

1. Multiobjective Scheduling on Distributed Heterogeneous Computing and Grid Environments Using a Parallel Micro-CHC Evolutionary Algorithm

Sergio Nesmachnow, Santiago Iturriaga

2. A Novel Job Scheduling Algorithm for Improving Data Grid's Performance

N. Mansouri, Gh. Dastghaibifard, A. Horri

3. Evaluation of Hybridization of GA and TS Algorithms for Independent Batch Scheduling in Computational Grids

Fatos Xhafa, Joanna Kolodziej, Leonard Barolli, Vladi Kolici, Rozeta Miho, Makoto Takizawa

W-DCG-AI-S1: Distributed and Parallel Computer Graphics and Artificial Intelligence- Room 3PGCIC 2

Chair: Carlos González Morcillo, University of Castilla-La Mancha, Spain

1. Leveraging Common-Sense in Human Activity Recognition

Maria J. Santofimia, Xavier del_Toro, Jesus Barba, Felix J. Villanueva, Juan Carlos López

2. Distributed Reconfigurable Hardware for Image Processing Acceleration

Julio D. Dondo, Jesús Barba, Fernando Rincón, Francisco Sánchez, David D. Fuente, Juan C. López

3. Process-in-Network for Image Providing Services

G. Urzaiz, D. Villa, F.J. Villanueva, J. Barba, M.J. Santofimia, F. Moya, J.C. López

4. Distributed Rendering of Images through Intelligent Task Distribution

David Vallejo, C. Glez-Morcillo, J. Angulo, J. Albusac

15:30 – 16:00 Coffee Break

16:00 – 17:30 Parallel Sessions

3PGCIC-S7: Distributed Systems – Room 3PGCIC 1

Chair: Antonio Gentile, University of Palermo, Italy

1.Contact Synchronization for the Android Platform

Vicent Seguí Pascual, Fatos Xhafa

2.Simulation of Infiniband Networks and Efficiency Calculation on Non-blocking Fully Populated Fat-Tree Topology

Gitanjali Sachdeva, Abhishek Patel, Henry Kasim, Simon See

3.Distributed E2E QoS-Based Path Computation Algorithm over Multiple Inter-domain Routes

Nabil Bachir Djarallah, Nicolas Le Sauze, Hélia Pouyllau, Samer Lahoud, Bernard Cousin

4.How to Work with Android within a (FB-)Aodv Network

Nicola Corriero, Angelo Mottola, Eustrat Zhupa

W-MiDiS-S1: Cloud Computing - Room 3PGCIC 1

Chair: Valentin Cristea, University of Politehnica Bucharest, Romania

1.Comparative Analysis of Multicore and Grid Based Execution of SWAT Model

Diana D. Rodila, Victor Bacu, Dorian Gorgan

2.Towards Configurable Building Blocks for the Development of Distributed Services: Resource Selection and Communication Protocols

Eliana-Dina Tîrşa, Mugurel Ionuţ Andreica, Valentin Cristea, Nicolae Țăpuş

3.Policy Based Resource Allocation in Cloud Systems

Elena Apostol, Cătălin Leordeanu, Valentin Cristea

4.Current Cloud Technologies Overview

Eleonora Mocanu, Mugurel Ionuţ Andreica, Nicolae Țăpuş

20:00 – 22:00 Conference Banquet

Friday, October 28, 2011

09:00 – 10:00 Single Session

BWCCA-2011/3PGCIC-2011 Keynote: Jordi Angusto, General Manager at Aerospace Research & Technology Centre (CTAE), Spain

“Why innovate? Where innovate?”

10:00 – 10:30 Coffee Break

10:30 – 12:00 Parallel Sessions

3PGCIC-S8: Ad-hoc, P2P and WSN – Room 3PGCIC 1

Chair: Florin Pop, University Politehnica of Bucharest, Romania

1. Towards a Framework for the Evaluation of Efficient Provisioning in Opportunistic Ad Hoc Networks

Anthony Smith, Richard Hill

2. Random Walk Search on Concatenated Hop-Limited Trees Embedded into Unstructured P2Ps

Shigeo Shioda, Phouvieng Hieungmany

3. Securing Vehicular Networks Based on Data-Trust Computation

Sînziana Mazilu, Mihaela Teler, Ciprian Dobre

W-SMECS-S1: Simulations and Modelling I – Room 3PGCIC 2

Chair: Fatos Xhafa, Technical University of Catalonia, Spain

1. Simulation Analysis of CMS Data Replication and Production Activities

Ciprian Dobre, Valentin Cristea

2. MIDI Pulse Width Modulation Application

Dalibor Slovák

3. Time Series Pattern Recognition via SoftComputing

Martin Kotyrba, Zuzana Oplatkova, Eva Volna, Roman Senkerik, Vaclav Kocian, Michal Janosek

4. Modeling and Simulation of a Shock Absorbing Shell for Ballistic Vests and Helmets to Achieve Optimal Protection

Claudiu Valentin Suci, Shuuhei Fukui, Yuuta Kimura

12:00 – 13:30 Parallel Sessions

W-MiDiS-S2: P2P and Context-Aware Computing – Room 3PGCIC 2

Chair: Valentin Cristea, University of Politehnica Bucharest, Romania

1. Using Bio-inspired Models to Design Peer-to-Peer Overlays

Bogdan Ghit, Florin Pop, Valentin Cristea

2. Strategies for Assigning Virtual Geometric Node Coordinates in Peer-to-Peer Overlays

Ana-Delia Sâmbotin, Mugurel Ionuț Andreica, Eleonora Mocanu

3. Evaluation of Optimistic Replication Techniques for Dynamic Files in P2P Systems

Alina-Diana Potlog, Fatos Xhafa, Florin Pop, Valentin Cristea

4. CAPIM: A Platform for Context-Aware Computing

Ciprian Dobre

W-SMECS-S2: Simulation and Modelling II – Room 3PGCIC 2

Chair: Zuzana Oplatkova, Tomas Bata University in Zlin, Czech Republic

1. Classification with Pseudo Neural Networks Based on Evolutionary Symbolic Regression

Zuzana Oplatkova, Roman Senkerik

2. Modeling and Simulation of a Vehicle Suspension with Variable Damping and Elastic Properties versus the Excitation Frequency

Claudiu Valentin Suciu, Tsubasa Tobiishi, Ryouta Mouri

3. CLEM - A Cloud Based Learning Environment for Millennial: Learn - Anytime, Anywhere

Mayur Patil, Vishal Kulkarni, Govind Negalur, Anand Pashupatimath

4. Fault Tolerance in Cluster Computing System

Ashwini Patil, Ankit Shah, Sheetal Gaikwad, Akassh A Mishra, Simranjit Singh Kohli, Sudhir Dhage

13:30 – 14:30 Lunch Break

Additional Information

Travel to Conference Venue

BWCCA-2011 and 3PGCIC-2011 will be held at the [Technical University of Catalonia \(UPC\)](#), Barcelona, Spain.

The exact address is: **Edifici Vèrtex - Plaça Eusebi Güell, 6 08034 Barcelona, Spain.**

Venue Access

The nearest subway station is Palau Reial, Line 3 (L3, green), a short walk from the conference venue. It is the most convenient transportation method and this line can be easily reached at the city center.

Access from other transportation methods

- Barcelona International Airport, El Prat: 14 km, about 20 minutes by car or taxi.
- Sants train station: 3,5 km. About 10 minutes, by taxi or subway (Sants, L3).
- Harbor: 17 km, about 20 minutes by taxi or subway (Drassanes, L3).
- Bus lines: 7, 33, 54, 60, 67, 68, 74, 75, 78 i 113.

Social Events

Welcome Reception Party:

Institut d'Estudis Catalans,

Carrer del Carme, 47, 08001 Barcelona. <http://www.iec.cat/>

How to get there from conference venue

- ➔From Subway Stop “Palau Reial” (L3, Direction Trinitat Nova) close to conference venue
- ➔**STOP** at Plaça Catalunya (15 min, 12 stops)
- ➔Walk to Carrer del Carme, N°47, 7 min approx (650 m)

Banquet Party

Catalonia Barcelona Plaza

http://www.hoteles-catalonia.com/en/our_hotels/europa/spain/catalunya/barcelona/hotel_catalonia_barcelona_plaza/index.jsp

Getting there

Line 1: Plaça Espanya station (calle de la Creu Coberta exit)

Line 3: Parada de Plaça Espanya (salida calle de la Creu Coberta)

Bus stop for buses numbers 27 / 30 / 23 / 9 / 37 / 79 / 91 / 109 / 45 / 65 / 165

Taxi –**2 km (City centre)**

City centre (2 km). €8/ approx./ taxi

Internet Access

The Internet access will be available during the Conferences days.

XSF-UPC

User: xsf.convidat

Password: Astero1de