## Schedule at a Glance

<table>
<thead>
<tr>
<th>December 5 (Thursday)</th>
<th>December 6 (Friday)</th>
<th>December 7 (Saturday)</th>
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<tbody>
<tr>
<td><strong>Registration</strong></td>
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<tr>
<td>(9:00 – 17:00)</td>
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<tr>
<td><strong>Opening Ceremony</strong></td>
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<td>(9:30 – 10:00)</td>
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<tr>
<td><strong>Keynote Speech 1</strong></td>
<td><strong>Keynote Speech 3</strong></td>
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<td>(10:00 – 11:00)</td>
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<tr>
<td><strong>Keynote Speech 2</strong></td>
<td><strong>Parallel Sessions</strong></td>
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<td>(11:30 – 12:30)</td>
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<tr>
<td><strong>Lunch</strong></td>
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<tr>
<td><strong>Parallel Sessions</strong></td>
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<tr>
<td><strong>Coffee Break</strong></td>
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<td>(15:10 – 15:30)</td>
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<td><strong>Parallel Sessions</strong></td>
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<tr>
<td>(15:30 – 17:10)</td>
<td>(15:30 – 17:10)</td>
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<tr>
<td><strong>Dinner Banquet at Novotel Hotel</strong></td>
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<tr>
<td>(18:30 – 20:30)</td>
<td><strong>Dinner at Australia Outback Spectacular</strong> (coach leaves at 18:10 from Novotel, Dinner is served from 19:30)</td>
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## Program Details

**Day 1: December 5, 2019 (Thursday)**

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<th>Time</th>
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<tbody>
<tr>
<td>9:00 - 17:00</td>
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<tr>
<td>9:30 - 10:00</td>
<td>Opening Ceremony</td>
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<tr>
<td>10:00 - 11:00</td>
<td><strong>Keynote Speech 1</strong>&lt;br&gt;Seeking Performance Portability on Graph Analytics&lt;br&gt;Prof. Ümit V. Çatalyürek, Georgia Institute of Technology, USA</td>
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<tr>
<td>11:00 - 11:20</td>
<td>Coffee / Tea Break</td>
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<tr>
<td>11:30 - 12:30</td>
<td><strong>Keynote Speech 2</strong>&lt;br&gt;Trusted Decision Making&lt;br&gt;Prof. Jin Song Dong, National University of Singapore</td>
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<tr>
<td>12:30 - 13:30</td>
<td>Lunch</td>
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### Parallel Sessions

#### Session 1A: Wireless Networks I
**Session Chair: Can Wang**

- **Min-Max Movement of Sink-Based Mobile Sensors in the Plane for Barrier Coverage**<br>Wenjie Zou (Fuzhou University), Longkun Guo (Fuzhou University), and Peihuang Huang (Minjiang University)
- **An Energy-Saving Routing Algorithm for Opportunity Networks Based on Sleeping Mode**<br>Zhou Chunyue (Beijing Jiaotong University), Tian Hui (Griffith University), Dong Yaocong (Beijing Jiaotong University), and Zhong Baitong (Uniview)
- **Base Station Positioning in Single-Tiered Wireless Sensor Networks**<br>Xinchen Li (Shenzhen University), Huan Cai (Shenzhen University), Gang Liu (Shenzhen University), and Kezhong Lu (Shenzhen University)

#### Session 1B: Parallel/Distributed Architectures
**Session Chair: Wee Lum Tan**

- **Parallel Tracking and Reconstruction of States in Heuristic Optimization Systems on GPUs**<br>Marcel Köster (German Research Center for Artificial Intelligence), Julian Groß (German Research Center for Artificial Intelligence), and Antonio Krüger (German Research Center for Artificial Intelligence)
- **FPGA-Based Parallel Multi-Core GZIP Compressor in HDFS**<br>Haoxin Luo (Shenzhen University), Ye Cai (Shenzhen University), Qiuming Luo (Shenzhen University), and Rui Mao (Shenzhen University)
- **GPU Parallel Acceleration of Frequency Domain Algorithm for Calculating Radar Target Echoes**<br>Zhao Naixuan (University of Electronic Science and Technology of China), Zhang Ge (University of Electronic Science and Technology of China), Wang Zijian (University of Electronic Science and Technology of China), and Kuang Ling (University of Electronic Science and Technology of China)
# Session 1C: Scheduling and Resource Allocation

**Session Chair**: M. Reza HoseinyFarahabady

### Real-Time Stream Data Processing at Scale

*Yongjie Yang (Guangxi University, Shanghai Rural Commercial Bank), Cheng Zhong (Guangxi University), and Danyang Chen (Guangxi University)*

### I/O Scheduling for Limited-Size Burst-Buffers Deployed High Performance Computing

*Benbo Zha (Sun Yat-Sen University) and Hong Shen (Sun Yat-Sen University, University of Adelaide)*

### Task Merging and Scheduling for Parallel Deep Learning Applications in Mobile Edge Computing

*Xin Long (Guangdong University of Technology), Jigang Wu (Guangdong University of Technology), Yalan Wu (Guangdong University of Technology), and Long Chen (Guangdong University of Technology)*

### Coordinated and Hindsight Resources Allocation in Distributed Computing

*Victor Toporkov (National Research University "MPEI") and Dmitry Yemelyanov (National Research University "MPEI")*

# Session 1D: Security and Privacy I

**Session Chair**: Huaxi Gu

### Plaintext Recovery Attacks and Their Mitigation in an Application-Specific SHE Scheme

*Tikaram Sanyashi (IIT Bombay), Anasuya Acharya (IIT Bombay), and Bernard Menezes (IIT Bombay)*

### Finite Approximate Consensus for Privacy in Distributed Sensor Networks

*Matt O'Connor (Victoria University of Wellington) and W. Bastiaan Kleijn (Victoria University of Wellington)*

### Modeling Data Transmission in Mobile Ad-hoc Networks for Characterizing Black-Hole Attacks

*Mnar Saeed Alnaghes (The University of Adelaide) and Hong Shen (Sun Yat-sen University)*

### Privacy Preservation for Network Traffic Classification

*Yue Lu (Beijing Jiaotong University), Hui Tian (Griffith University), and Jingjing Yu (Beijing Jiaotong University)*

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**15:10 - 15:30** Coffee/Tea Break

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**Parallel Sessions**

### Session 2A: Algorithms I

**Session Chair**: Huaxi Gu

### A Virtual Machine Placement Algorithm Combining NSGA-II and Bin-Packing Heuristic

*Wenting Wei (Xidian University), Kun Wang (Xidian University), Kexin Wang (Xidian University), Shengjun Guo (Xidian University), and Huaxi Gu (Xidian University)*

### New Parallel Algorithms for All Pairwise Computation on Large HPC Clusters

*Tao Tang (University of Technology Sydney), Hao Wu (University of Sydney), Wei Bao (University of Sydney), Pengyi Yang (University of Sydney), Dong Yuan (University of Sydney), and Bing Bing Zhou (University of Sydney)*

### A Holistic Stream Partitioning Algorithm for Distributed Stream Processing Systems

*Kejian Li (Shenzhen University), Gang Liu (Shenzhen University), and Minhua Lu (Shenzhen University)*

### Acceleration of Genetic Algorithm on GPU CUDA Platform

*Dylan Matthew Janssen (Griffith University) and Alan Wee-Chung Liew (Griffith University)*
Session 2B: High-Performance Scientific Computing
Session Chair: Leonel Toledo

Implementing the Matrix Multiplication with DFC on Kunlun Small Scale Computer
Zheng Du (Tsinghua University), Jing Zhang (Shenzhen University), Shihao Sha (Shenzhen University), and Qiuming Luo (Shenzhen University)

Accelerating Conjugate Gradient using OmpSs
Sandra Catalán (Barcelona Supercomputing Center), Xavier Martorell (Universitat Politècnica de Catalunya), Jesús Labarta (Universitat Politècnica de Catalunya), Tetsuzo Usui (Fujitsu Limited), Leonel Antonio Toledo Díaz (Barcelona Supercomputing Center), and Pedro Valero-Lara (Barcelona Supercomputing Center)

Tasking in Accelerators: Performance Evaluation
Leoln Toledo (Barcelona Supercomputing Center), Antonio J. Peña (Barcelona Supercomputing Center), Sandra Catalán (Barcelona Supercomputing Center), and Pedro Valero-Lara (Barcelona Supercomputing Center)

Adaptive Power Reallocation for Value-Oriented Schedulers in Power-Constrained HPC
Nirmal Kumbhare (The University of Arizona), Aniruddha Marathe (Lawrence Livermore National Laboratory), Ali Akoglu (The University of Arizona), Salim Hariri (The University of Arizona), and Ghaleb Abdulla (Lawrence Livermore National Laboratory)

Session 2C: Security and Privacy II
Session Chair: Shin Morishima

Research on Differential Privacy for Medical Health Big Data Processing
Yugu Hu (Guangxi University for Nationalities), Lina Ge (Guangxi University for Nationalities), Guifen Zhang (Guangxi University for Nationalities), and Donghong Qin (Guangxi University for Nationalities)

Quantifying the Impact of Design Strategies for Big Data Cyber Security Analytics: An Empirical Investigation
Faheem Ullah (The University of Adelaide) and M. Ali Babar (The University of Adelaide)

A Hybrid Trust Management Model for Secure and Resource Efficient Vehicular Ad hoc Networks
Adnan Mahmood (Macquarie University), Sarah Ali Siddqui (Macquarie University), Wei Emma Zhang (Macquarie University, The University of Adelaide), and Quan Z. Sheng (Macquarie University)

Scalable Anomaly Detection Method for Blockchain Transactions using GPU
Shin Morishima (Toyama Prefectural University)

Session 2D: Machine Learning and Data Mining I
Session Chair: Can Wang

RNC: Reliable Network Property Classifier Based on Graph Embedding
Hao Liao (Shenzhen University), Qixin Liu (Shenzhen University), Alexandre Vidmer (Shenzhen University), Mingyang Zhou (Shenzhen University), and Rui Mao (Shenzhen University)

Optimising Deep Learning Split Deployment for IoT Edge Networks
Cailen Robertson (Griffith University), Jia Li (Griffith University), Ryoma Ohira (Griffith University), Quoc Viet Hung Nguyen (Griffith University), and Jun Jo (Griffith University)

Event Causality Detection in Tweets by Context Word Extension and Neural Networks
Humayun Kayesh (Griffith University), Md. Saiful Islam (Griffith University), and
<table>
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<td>11:20 - 12:30</td>
<td>Session 3A: Algorithms II</td>
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<td>11:20 - 12:30</td>
<td>Session Chair: Hong Shen</td>
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<td>11:20 - 12:30</td>
<td>A Map-Reduce-Based Relation Inference Algorithm for Autonomous System</td>
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<td>11:20 - 12:30</td>
<td>Jiaman Ding (Kunming University of Science and Technology), Haibin Li (Kunming University of Science and Technology), Yuanyuan Wang (Australian National University), Lianyin Jia (Kunming University of Science and Technology), Jinguo You (Kunming University of Science and Technology), Yang Yang (Kunming University of Science and Technology)</td>
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<td>11:20 - 12:30</td>
<td>A Parallel Uncertain Frequent Itemset Mining Algorithm with Spark</td>
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<td>11:20 - 12:30</td>
<td>Jia He (Nanjing University of Posts and Telecommunications), Shuai Chen (Nanjing University of Posts and Telecommunications), Haichang Yao (Nanjing University of Posts and Telecommunications), Houzi Fang (Nanjing University of Posts and Telecommunications), Kui Li (Nanjing University of Posts and Telecommunications), Shangdong Liu (Nanjing University of Posts and Telecommunications), Zhengyuan Xie (University of Toronto), and Kairui Wang (University of Liverpool)</td>
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<td>11:20 - 12:30</td>
<td>Multi-Thread Concurrent Compression Algorithm for Genomic Big Data</td>
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<td>11:20 - 12:30</td>
<td>Vincent Portella (University of Adelaide) and Hong Shen (University of Adelaide)</td>
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<td>11:20 - 12:30</td>
<td>Session 3B: Wireless Sensor Networks and Web Security</td>
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<td>11:20 - 12:30</td>
<td>Session Chair: Mohsin Murtaza</td>
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<td>11:20 - 12:30</td>
<td>Dark Web Along With The Dark Web Marketing And Surveillance</td>
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<td>11:20 - 12:30</td>
<td>Kithmini Godawatte (Charles Sturt University), Mansoor Raza (Charles Sturt University), Mohsin Murtaza (Charles Sturt University), and Ather Saeed (Charles Sturt University)</td>
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<td>11:20 - 12:30</td>
<td>An Improved DV-hop Algorithm Based on Iterative Computation and two Communication Ranges for Sensor Network Localization</td>
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<td>11:20 - 12:30</td>
<td>Xu Xiu (China University of Mining and Technology) and</td>
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Zhu Changzheng (China University of Mining and Technology)
A Grid-Based Joint Routing and Energy Replenish Scheme for Rechargeable Wireless Sensor Networks
Zhansheng Chen (Beijing Jiaotong University, Beijing Union University, Guangxi Key laboratory of hybrid computation and IC design analysis) and Hong Shen (Sun Yat-sen University, University of Adelaide)

Joint Mobile Data Collection and Energy Supply Scheme for Rechargeable Wireless Sensor Networks
Zhansheng Chen (Beijing Jiaotong University, Beijing Union University, Guangxi Key laboratory of hybrid computation and IC design analysis) and Hong Shen (Sun Yat-sen University, University of Adelaide)

Session 3C: Distributed Data and Systems
Session Chair: Xiaoying Kong
A Temporal Caching-Aware Dummy Selection Location Algorithm
Xuejiao Mu (University of Adelaide), Hong Shen (University of Adelaide), and Zhigang Lu (University of Adelaide)

Development of Semantic Model of Multi-Level-Building Navigation Using Indoor Ontology and Dijkstra's Algorithm
Ye Yuan (University of Technology Sydney), Xiaoying Kong (University of Technology Sydney), Gengfa Fang (University of Technology Sydney), Li Liu (The University of Sydney), and Sanya Khruaehong (Naresuan University)

A Modified Community-Level Diffusion Extraction in Social Network
Huajian Chang (Sun Yat-sen University) and Hong Shen (Sun Yat-sen University)

Overlapping Community Detection of Complex Network: A Survey
Qi Chen (Institute of Information Engineering, CAS) and Lingwei Wei (Institute of Information Engineering, CAS; School of Cyber Security, UCAS)

Session 3D: Software Systems and Image Processing
Session Chair: Can Wang
Information Management Software Systems for Improving Reliability
Kyaw Zaw Ye (Pyinoolwin Science and Technology Research Center), Soe Myint Maung (Pyinoolwin Science and Technology Research Center), Zaw Htet (Pyinoolwin Science and Technology Research Center), Kyaw Thu Aung (Pyinoolwin Science and Technology Research Center), Aung Myat Kyaw (Pyinoolwin Science and Technology Research Center), Pyae Sone Ko Ko (Pyinoolwin Science and Technology Research Center), and Sithu Thant Zin (Pyinoolwin Science and Technology Research Center)

Image Preprocessing Algorithm Based on K-Means
Xiaofan Zhao (People’s Public Security University of China), Manchun Cai (People’s Public Security University of China), Yuan Ren (People’s Public Security University of China), and Fan Yang (People’s Public Security University of China)

Effect of Parallel Processing by Duplicating Histogram in Automatic Image Binarization for High-Level Synthesis
Moen Yamasaki (Kyushu Institute of Technology) and Akira Yamawaki (Kyushu Institute of Technology)

Infinite Propagation Speed for a Two-Component Camassa-Holm Equation
Wenjun Cui (Beijing Jiaotong University) and Yidong Li (Beijing Jiaotong University)
Parallel Sessions

Session 4A: Wireless Networks II
Session Chair: John Ayoade
A Timely VANET Multi-hop Routing Method in IoT
Maede Fotros (Azad University), Mohammad Mansour Riahi Kashani (Azad University), Javad Rezazadeh (Kent Institute Australia), and John Ayoade (Kent Institute Australia)

UltraReliable Communication: Availability Analysis in 5G Cellular Networks
Yosra Benchaabene (National Engineering School of Gabes), Noureddine Boujnah (Faculty of Sciences of Gabes, Tunisia TSSG-Waterford Institute of Technology), and Faouzi Zarai (National School of Electronics and Telecommunications of Sfax)

Adaptive Clustering Strategy Based on Capacity Weight
Xingchun Liu (Beijing Jiaotong University), Zhipeng Feng (Beijing Jiaotong University), Jingjing Yu (Beijing Jiaotong University), Ying Tao (China Academy of Space Technology), and Shubo Ren (China Academy of Space Technology)

D2D-Assisted Computation Offloading for Mobile Edge Computing Systems with Energy Harvesting
Molin Li (Tianjin University), Tong Chen (Tianjin University), Jiaxin Zeng (Tianjin University), Xiaobo Zhou (Tianjin University), Keqiu Li (Tianjin University), and Heng Qi (Dalian University of Technology)

Session 4B: Security and Privacy III
Session Chair: Mirjana Ivanovic
An Economical and High-Quality Encryption Scheme for Cloud Servers with GPUs
Xiongwei Fei (Hunan University), KenLi Li (Hunan University), Shui Yu (University of Technology Sydney), and Keqin Li (State University of New York)

DOCKERANALYZER: Towards Fine Grained Resource Elasticity for Microservices-Based Applications Deployed with Docker
Mohamed Hedi Fourati (ReDCAD Laboratory Sfax), Soumaya Marzouk (ReDCAD Laboratory Sfax), Khalil Drira (LAAS CNRS), and Mohamed Jmaiel (Digital Research Center)

Saša Pesi (University of Novi Sad), Miloš Radovanovi (University of Novi Sad), Mirjana Ivanovi (University of Novi Sad), Costin Badica (University of Craiova), Milenko Toši (VizLore Labs Foundation), Ognjen Ikovi (VizLore Labs Foundation), and Dragan Boškovi (VizLore Labs Foundation)

Protecting Sensitive Location Visits Against Inference Attacks in Trajectory Publishing
Xiangyu Liu (Wellington Institute of Technology), Manish Singh (Wellington Institute of Technology), and Xiufeng Xia (Shenyang Aerospace University)

Session 4C: Machine Learning and Data Mining II
Session Chair: Tatsuya Nonoyama
Outlier Removal for the Reliable Condition Monitoring of Telecommunication Services
Günter Fahrnberger (University of Hagen)

Machine Learning Based Performance Analysis and Prediction of Jobs on a HPC Cluster
Zhengxiong Hou (Northwestern Polytechnical University), Shuxin Zhao (Northwestern Polytechnical University), Chao Yin (Northwestern Polytechnical University), Yunlan Wang (Northwestern Polytechnical University), Jianhua Gu (Northwestern Polytechnical University), and Xingshe Zhou (Northwestern Polytechnical University)
### Session 4D: Software Tools I

**Session Chair:** Akira Yamawaki

The Library for Hadoop Deflate Compression Based on FPGA Accelerator with Load Balance  
*Haixin Du (Shenzhen University), Jiankui Zhang (Shenzhen University), Shihao Sha (Shenzhen University), Cai Ye (Shenzhen University), and Qiuming Luo (Shenzhen University)*

Introducing pulseAT: A Tool for Analyzing System Utilization in Distributed Systems  
*Uwe Jahn (Dortmund University of Applied Sciences and Arts), Vladimir Poliakov (Dortmund University of Applied Sciences and Arts), Meghadoot Gardi (Dortmund University of Applied Sciences and Arts), Peter Schulz (Dortmund University of Applied Sciences and Arts), and Carsten Wolf (Dortmund University of Applied Sciences and Arts)*

Development of Filled Circle Drawing in High-Level Synthesis Oriented Game Programming Library  
*Yuki Yamagata (Kyushu Institute of Technology) and Akira Yamawaki (Kyushu Institute of Technology)*

Modeling Power Consumption of The Code Execution Using Performance Counters Statistics  
*Guang Wei (Beihang University), Depei Qian (Beihang University), Hailong Yang (Beihang University), and Zhongzhi Luan (Beihang University)*

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### Coffee/Tea Break

15:10 - 15:30

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### Parallel Sessions

#### Session 5A: Algorithms III

**Session Chair:** Md. Saiful Islam

Concurrent Failure Recovery for Product Matrix Regenerating Code  
*Jingyao Zhang (Here Data Technology)*

Scalability of Parareal for Large Power Grid Simulations  
*Francis C Joseph (Indian Institute of Science) and Gurunath Gurrala (Indian Institute of Science)*

Improving Recommender Systems Accuracy in Social Networks Using Popularity  
*Kasra Majbouri Yazdi (Deakin University), Adel Majbouri Yazdi (Kharazmi University), Saeed Khodayi (Azad University), Jingyu Hou (Deakin University), and Wanlei Zhou (University of Technology Sydney)*

A Distributed Genetic Algorithm with Adaptive Diversity Maintenance for Ordered Problems  
*Ryoma Ohira (Griffith University) and Md. Saiful Islam (Griffith University)*

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#### Session 5B: Software Systems and Technologies

**Session Chair:** Wee Lum Tan

A Model Driven-Based Approach for Managing Unanticipated Runtime Adaptation of RTE Systems  
*Nissaf Fredj (University of Sousse), Yessine Hadj Kacem (University of Sfax), and Mohamed Abid (University of Sfax)*

SMT Solvers as Efficient Tools for Automatic Time Properties Verification of Security Protocols

Agnieszka M. Zbrzezny (University of Warmia and Mazury in Olsztyn),
Olga Siedlecka-Lamch (Czestochowa University of Technology),
Sabina Szymoniak (Czestochowa University of Technology), and
Mirosław Kurkowski (Cardinal St. Wyszyński University)

A Scalable Parallel Computing Framework for Large-Scale Astrophysical Fluid Dynamics Numerical Simulation
Igor Kulikov (ICMMG SB RAS), Igor Chernykh (ICMMG SB RAS), and
Andrei Tchernykh (CICESE Research Center)

TrustZone for Supervised Asymmetric Multiprocessing Systems
Mahdi Amiri-Kordestani (University of Otago), David Eyers (University of Otago),
Zhiyi Huang (University of Otago), and Morteza Biglari-Abhari (University of Auckland)

Session 5C: Quantum Computing
Session Chair: Georg Hahn

Fault-Tolerant Logical Hadamard Gates Implementation in Reed-Muller Quantum Codes
DongXiao Quan (Xidian University), Li Niu (Xidian University), LiLi Zhu (Xidian University), and
ChangXing Pei (Xidian University)

Efficient Fault-Tolerant Syndrome Measurement of Quantum Error-Correcting Codes Based on "Flag"
QiFei Wei (Xidian University), DongXiao Quan (Xidian University), Jing Liu (Xidian University), and
ChangXing Pei (Xidian University)

Faithful Multi-Hop Qubit Transmission Based on GHZ States
Na Chen (Shandong University of Science and Technology),
Bin Yan (Shandong University of Science and Technology),
Shuangshuang Shuai (Shandong University of Science and Technology), and
Changxing Pei (Xidian University)

Peering Into the Anneal Process of a Quantum Annealer
Elijah Pelofske (Los Alamos National Laboratory), Georg Hahn (Harvard University), and
Hristo Djidjev (Los Alamos National Laboratory)

Session 5D: Image Processing
Session Chair: Quoc-Viet Tran

Right Ventricle Segmentation of Cine MRI Using Residual U-net Convolutinal Networks
Zexiong Liu (Shenzhen University), Yuhong Feng (Shenzhen University), and
Xuan Yang (Shenzhen University)

Color Distortion Removal for Heart Rate Monitoring in Fitness Scenario
Quoc-Viet Tran (National Taiwan University of Science and Technology),
Shun-Feng Su (National Taiwan University of Science and Technology), and
Minh-Quang Tran (National Taiwan University of Science and Technology)

Automated Segmentation of Substantia Nigra and Red Nucleus in Quantitative Susceptibility Mapping Images
Dibash Basukala (University of Canterbury), Ramakrishnan Mukundan (University of Canterbury),
Tracy Melzer (University of Otago), and Anthony Lim (University of Otago)

19:30 - 21:00 Dinner at Australia Outback Spectacular (coach leaves at 18:10 from Novotel Hotel)
### Day 3: December 7, 2019 (Saturday)

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<td>9:00 - 13:00</td>
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| 10:00 - 11:00 | Keynote Speech 4  
**HPC, Big Data, and Machine Learning Convergence**  
Prof. Geoffrey Fox, Indiana University, USA |
| 11:00 - 11:20 | Coffee / Tea Break |

#### Parallel Sessions

**Session 6A: Software Tools II**  
**Session Chair:** Hiroyuki Takizawa  
**An OpenCL-Like Offload Programming Framework for SX-Aurora TSUBASA**  
Hiroyuki Takizawa (Tohoku University), Shinji Shiotsuki (Tohoku University), Naoki Ebata (Tohoku University), and Ryusuke Egawa (Tohoku University)  
**A CloudSim-Extension for Simulating Distributed Functions-as-a-Service**  
Hongseok Jeon (Electronics and Telecommunications Research Institute), Chungiae Cho (Electronics and Telecommunications Research Institute), Seungiae Shin (Electronics and Telecommunications Research Institute), and Seunghyun Toon (Electronics and Telecommunications Research Institute)  
**New List Skeletons for the Python Skeleton Library**  
Frédéric Loulergue (Northern Arizona University) and Jolan Philippe (Northern Arizona University, Flagstaff, IMT Atlantique)  
**Reachability in Multithreaded Programs Is Polynomial in the Number of Threads**  
Alexander Malkis (Technical University of Munich)

**Session 6B: Distributed Systems**  
**Session Chair:** M. Reza Hoseinyfarahabady  
**Disk Throughput Controller for Cloud Data-Centers**  
M. Reza Hoseinyfarahabady (The University of Sydney), Zahir Tari (RMIT University), and Albert Y. Zomaya (The University of Sydney)  
**Low Computational Data Fusion Approach Using INS and UWB for UAV Navigation Tasks in GPS-Denied Environments**  
Xiaoying Kong (University of Technology Sydney), Gengfa Fang (University of Technology Sydney), Li Liu (The University of Sydney), and Tich Phuoc Tran (UNSW Canberra)  
**NFV Optimization Algorithm for Shortest Path and Service Function Assignment**  
Arvind Kalyan (Westview High School)  
**An Improved MCB Localization Algorithm Based on Received Signal Strength Indicator**  
Yan Qiao (Beijing Jiaotong University), Zhou Chunyue (Beijing Jiaotong University), Zhong Baitong (Hangzhou Uniview), and Tian Hui (Griffith University)

**Session 6C: Machine Learning and Data Mining III**  
**Session Chair:** Hui Tian  
**Succinct Representations in Collaborative Filtering: A Case Study using Wavelet Tree on 1,000 Cores**  
Xiangjun Peng (University of Nottingham Ningbo China), Qingfeng Wang (University of Nottingham Ningbo China), Xu Sun (University of Nottingham Ningbo China), Chunye Gong (National University of Defense Technology), and Yaohua Wang (National University of Defense Technology)  
**Comparison of Binary Rain Prediction on HIMAWARI using MPI and CUDA**
<table>
<thead>
<tr>
<th>Session 6D: Intelligent Computing</th>
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<tr>
<td><strong>Session Chair:</strong> Dian Zhang</td>
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<tr>
<th>Title</th>
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<tr>
<td><strong>Attention-Based Supply-Demand Prediction for Autonomous Vehicles</strong></td>
<td>Aisya Nafiisyanti (Western Michigan University, National Institute of Aeronautic and Space), Zikai Zhang (Beijing Jiaotong University), Hairong Dong (Beijing Jiaotong University), Yidong Li (Beijing Jiaotong University), Yizhe You (Beijing Jiaotong University), and Fengping Zhao (Beijing Jiaotong University)</td>
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<td><strong>In the Quest of Trade-off between Job Parallelism and Throughput in Hadoop: A Stochastic Learning Approach for Parameter Tuning on the Fly</strong></td>
<td>Ramesh Pokhrel (Oslo Metropolitan University), Ashish Rauniyar (University of Oslo), and Anis Yazidi (Oslo Metropolitan University)</td>
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<td><strong>Fengyun-4A Meteorological Satellite Data Service System</strong></td>
<td>Yonggang Qi (China Meteorological Administration), Jiashen Zhang (China Meteorological Administration), Zhe Xu (China Meteorological Administration), and Di Xian (China Meteorological Administration)</td>
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<td><strong>Dynamic Pipelining for The Loosely-Coupled Distributed Constraint Satisfaction Problems</strong></td>
<td>Chun Chen (Chinese Academy of Sciences, University of Chinese Academy of Sciences), Li Ning (Chinese Academy of Sciences), Yong Zhang (Chinese Academy of Sciences), and Shengzhong Feng (National Supercomputing Center in Shenzhen)</td>
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<td><strong>Logistics Scheduling for UAV Based on Tabu Search Algorithm</strong></td>
<td>Ke Zhao (Nanjing University of Posts and Telecommunications), Shoubao Su (Jinling Institute of Technology), Haiping Huang (Nanjing University of Posts and Telecommunications), and Jie Zhu (Nanjing University of Posts and Telecommunications)</td>
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<td><strong>Blockchain Consensus Algorithm Design Based on Consistent Hash Algorithm</strong></td>
<td>Jian Yang (Sun Yet-sen University) and Hong Shen (Sun Yet-sen University)</td>
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13:00 - 14:00  Lunch