

# Technical Session Schedule

May 12, 2005, Thursday

09:00 - 09:30	Opening and Welcome Address Prof. Mounir Hamdi
09:30 - 10:30	Keynote Speech Hosted by Prof. Mounir Hamdi
10:30 - 11:00	Coffee Break
11:00 - 12:30 <b>Session 1</b>	A: High performance routers/switches architecture I B: Routing protocols, MPLS, and GMPLS I C: WDM/Optical networks I
12:30 - 14:00	Lunch
14:00 - 15:30 <b>Session 2</b>	A: Switching Scheduling I B: Resilience, Protection and Restoration I C: Network Processors, IP table lookup, and Packet Classification
15:45 - 17:15 <b>Session 3</b>	A: Multicast and protocol design B: Performance Evaluation and measurement I C: Wireless networks, Satellite networks, and Mobile ad hoc networks I

May 13, 2005, Friday

09:00 - 09:40	Invited Talk (Huawei) Introduction by Prof. Mounir Hamdi
09:50 - 10:30 <b>Session 4</b>	A: Optical switches B: Switching Scheduling II C: Resilience, Protection, and Restoration II
11:00 - 12:30 <b>Session 5</b>	A: Switching Scheduling III B: Routing Protocols, MPLS, and GMPLS II C: High performance routers/switches architecture II
12:30 - 14:00	Lunch
14:00 - 15:30	Panel – Hosted by Prof. Mounir Hamdi
15:30 - 15:45	Coffee Break
15:45 - 17:15 <b>Session 6</b>	A: Resilience, Protection and Restoration III B: Performance Evaluation and measurement II C: QoS networking and Traffic Management I

May 14, Saturday

09:00 - 09:30	Invited Talk
09:35 - 10:35 <b>Session 7</b>	A: Switching Scheduling IV B: Routing Protocols, MPLS, and GMPLS III C: Performance Evaluation and measurement III
11:00 - 12:30 <b>Session 8</b>	A: Wireless networks, Satellite networks, and Mobile ad hoc networks II B: QoS networking and Traffic Management II C: WDM/Optical networks II

**Day 1: May 12, 2005, Thursday**

## **Session 1 (11:00 – 12:30)**

### **A: High performance routers/switches architecture I**

**Session Chair: Roberto Rojas-Cessa (NJIT, USA)**

#### **Building Packet Buffers using Interleaved Memories**

Gireesh Shrimali, Nick McKeown (Stanford University, USA)

#### **Byte-Focal: A Practical Load Balanced Switch**

Yanming Shen, Shi Jiang, Shivendra Panwar, H. Jonathan Chao (Polytechnic University Brooklyn, USA)

#### **Load-balancing in Clos-like Packet Switches with Distributed Cross-Point Queues**

Sareh Taebi, Sofia Paredes, Trevor Hall (University of Ottawa, Canada)

#### **Click vs. Linux: Two Efficient Open-Source IP Network Stacks for Software Routers**

Andrea Bianco, Robert Birke, Davide Bolognesi, Jorge Finochietto, Giulio Galante, Marco Mellia (Politecnico di Torino, Italy)

### **B: Routing Protocols, MPLS, and GMPLS I**

**Session Chair: Liang Cheng (Lehigh University, USA)**

#### **ROSE: A Novel Link State Information Update Scheme for QoS Routing**

Gang Cheng, Nirwan Ansari (NJIT, USA)

#### **Introducing Node Adaptation Capability Descriptor in GMPLS Multi-Region Networks**

Filippo Cugini (CNIT, Italy),

Nicola Andriolli, Alessio Giorgetti, Luca Valcarenghi, Piero Castoldi (Scuola Superiore Sant'Anna, Italy)

#### **On Maximum Available Bandwidth through Disjoint Paths**

Samrat Ganguly (NEC Labs, USA), Arunabha Sen, Bin Hao, Bao Hong Shen (Arizona State University, USA)

#### **Replace MPLS with EPFTS to build a SUPANET**

Huaxin Zeng, Jun Dou, Dengyuan Xu (Southwest Jiaotong University, P.R. China)

### **C: WDM/Optical networks I**

**Session Chair: Indra Widjaja (Bell Labs, USA)**

#### **Crosstalk-free Photonic Switching Networks**

Yun Deng, Tony Tong Lee (The Chinese University of Hong Kong, Hong Kong)

#### **Distributed Clustering Method for Large-Scaled Wavelength Routed Networks**

Yukinobu Fukushima (Osaka University, Japan),

Hiroaki Harai (National Institute of Information and Communications Technology, Japan),

Shin'ichi Arakawa, Murata Masayuki (Osaka University, Japan, Japan)

#### **Routing and Wavelength Assignment with Maximum Resource Sharing in WDM Mesh Networks with Path-Based Protection**

Haitham Hamza, Jitender Deogun, Kefei Wang (University of Nebraska-Lincoln, USA)

## **Optical Burst Transport Network (OBTN) - A Novel Architecture for Efficient Transport of Optical Burst Data over Lambda Grids**

Christoph Gauger (University of Stuttgart, Germany),  
Biswanath Mukherjee (Univ. of California Davis, USA)

### **Session 2: (14:00 – 15:30)**

#### **A: Switch scheduling I**

**Session Chair: Aleksandra Smiljanic (Belgrade University/Stony Brook University, USA)**

#### **Mutual Priority: a Scheme for Effective and Efficient Distributed Schedulers for High-speed Cell-based Switches**

Dimitrios Serpanos, Maria Gamvrili (University of Patras, Greece)

#### **HCF: A Starvation-free Practical Algorithm for Maximizing Throughput in Input-Queued Switches**

John Kim, Abhishek Das (Stanford University, USA)

#### **Multicast Scheduling in Buffered Crossbar Switches with Multiple Input Queues**

Shutao Sun (Graduate School, China Academy of Sciences, P.R. China)

#### **LCCF: A Scheduling Algorithm for Asynchronous Optical Switches**

Li Xin, Zhen Zhou, Mounir Hamdi (CS Dept., HKUST, KLN, Hong Kong, P.R. China)

#### **B: Resilience, Protection and Restoration I**

**Session Chair: Andrzej Jajszczyk (AGH University of Science and Technology. Poland)**

#### **A Regenerator Pool Dimensioning Method to Avoid Early Blocking**

Dominic Schupke, Christian Eder, Thomas Blankenhorn, Svetoslav Duhovnikov (Siemens, Germany)

#### **Routing and Restoration in Networks with Hose-Model Traffic Patterns**

Jian Chu, Chin-Tau Lea (Hong Kong University of Science and Technology, Hong Kong)

#### **Improvements on Fault Localization in GMPLS-based Networks**

Hai-Bo Guo (Beijing University of Posts and Telecommunications, P.R. China),

Geng-Sheng Kuo (National Chengchi University, Republic of China)

#### **A Cost-effective Implementation of Fast GMPLS Shared Protection for IP over 10 Gigabit Ethernet Networks**

Filippo Cugini (CNIT, Italy),

Piero Castoldi, Luca Valcarengi (Scuola Superiore Sant'Anna, Italy)

#### **C: Network processors, IP table lookup, and Packet classification**

**Session Chair: H. Jonathan Chao (Polytechnic University, USA)**

#### **Parallel Multiple Hashing for Packet Classification**

Hyesook Lim, Yeojin Jung, Hyeran Kim (Ewha womans University, Republic of Korea)

#### **Efficient Packet Classification Using Spatial Cutting**

Chun-Liang Lee, Pi-Chung Wang, Chia-Tai Chan (Telecommunication Laboratories, Chunghwa Telecom Co., Ltd., Republic of China)

## **Hybrid Open Hash Tables for Network Processors**

Qing Ye (Lehigh University, USA),  
Dale Parson (Agere Systems, Inc., USA),  
Liang Cheng (Lehigh University, USA)

## **Pipelined Architecture for Fast IP Lookup**

Ting Zhao, Chin-Tau Lea (Hong Kong University of Science and Technology, Hong Kong)

## **Session 3 (15:45 – 17:15)**

### **A: Multicast and protocol design**

**Session Chair: Danny H. K. Tsang (HKUST, Hong Kong)**

#### **On the Relationship of Node Capacity Distribution and P2P Topology Formation**

Kin Wah Kwong, Danny H. K. Tsang (Hong Kong University of Science and Technology, Hong Kong)

#### **On Finding the Best Partial Multicast Protection Tree under Dual-Homing Architecture**

Mei Yang (University of Nevada, Las Vegas, USA),  
Jianping Wang (Georgia Southern University, USA),  
Xiangtong Qi (Hong Kong University of Science and Technology, Hong Kong),  
Yingtao Jiang (University of Nevada, Las Vegas, USA)

#### **Reliable Multicast for Control in Distributed Routers**

Markus Hidell, Peter Sjödin, Olof Hagsand (KTH - Royal Institute of Technology, Sweden)

#### **Per-hop Based Delay Bound Scheduling for File-searching in Gnutella-like Networks**

Haoliang Zhang, Junxiu Lu, Xiuming Shan, Yong Ren (Tsinghua University, P.R. China)

### **B: Performance Evaluation and measurement I**

**Session Chair: Kwan Yeung (University of Hong Kong, Hong Kong)**

#### **Designing and Evaluating Network Processor Applications**

Jing Fu, Olof Hagsand (KTH - Royal Institute of Technology, Sweden)

#### **Building Next Generation, Open, Secure, Reliable and Scalable Experimental IP Networks**

Liwen He (Security Research Center, BT Group CTO Office, United Kingdom)

#### **Design and Performance Evaluation of Scalable TWIN Networks**

Carl Nuzman, Indra Widjaja (Bell Labs, Lucent Technologies, USA)

#### **A Method of Detecting Performance Degradation at TCP Flow Level from Sampled Packet Streams**

Ryoichi Kawahara, Keisuke Ishibashi, Tatsuya Mori, Takeo Abe (NTT, Japan)

### **C: Wireless networks, Satellite networks, and Mobile ad hoc networks I**

**Session Chair: Brahim Bensaou (HKUST, Hong Kong)**

#### **Extending WLAN Coverage Using Infrastructureless Access Points**

Jingyi He (Hong Kong Applied Science and Technology Research Institute, P.R. China),  
Jiancong Chen (Princeton University, USA),  
Gary Chan (The Hong Kong University of Science and Technology, P.R. China)

## **Supporting Real-Time Service in Bluetooth Networks**

Maode Ma (Nanyang Technological University, Singapore)

## **REFWA Plus: Enhancement of REFWA to Combat Link Errors in LEO Satellite Networks**

Tarik Taleb, Nei Kato, Yoshiaki Nemoto (Tohoku University, Japan)

## **Coverage and Connectivity Control of Mobile Sensor Networks under Mobility**

Qiang Qiu, Ahmed Kamal (Iowa State University, USA)

**Day 2: May 13, 2005, Friday**

## **Session 4 (09:50 – 10:30)**

### **A: Optical Switches**

**Session Chair: Jaafar Elmirghani (University Wales Swansea, UK)**

#### **A Novel Delay-Bounded Traffic Conditioner for Optical Edge Switches**

Vijay Sivaraman, David Moreland, Diethelm Ostry (CSIRO, Australia)

#### **Achieving Max-Min Fairness in WDM Optical Burst Switching Networks**

Yong Liu, Kee Chaing Chua, Mohan Gurusamy (National University of Singapore, Singapore)

### **B: Switch Scheduling II**

**Session Chair: Itamar Elhanany (University Tennessee, USA)**

#### **Performance Analysis of Storage Area Network Switches**

Andrea Bianco, Paolo Giaccone, Enrico Maria Giraudo, Fabio Neri, Enrico Schiattarella (Politecnico di Torino, Italy)

#### **Fault Tolerance Study on Large Scale Benes Switch**

Yu Dong (Florida International University, USA)

### **C: Resilience, Protection and Restoration II**

**Session Chair: Stamatis Kartalopoulos (University of Oklahoma, USA)**

#### **Self Regulating Traffic Distribution – A Distributed Traffic Engineering and Resilience Concept**

Claus G. Gruber, Bernhard Lichtinger, Thomas Schwabe (Munich University of Technology Institute of Communication Networks)

#### **Next generation WDM networks with multi-channel protection, recovery and equalization**

Stamatis Kartalopoulos (University of Oklahoma, USA)

## **Session 5: (11:00 – 12:30)**

### **A: Switch scheduling III**

**Session Chair: Dominic Schupke (Siemens, Germany)**

#### **Fast Scheduling for Optical Packet Switches with Minimum Configurations**

Zhen Zhou, Li Xin, Mounir Hamdi (CS Dept., HKUST, KLN, Hong Kong, P.R. China)

## **Stability of Frame-Based Maximal Weight Matching Algorithms with Reconfiguration Delays**

Xike Li, Itamar Elhanany (University of Tennessee, USA)

## **On Optimization of Optical Packet Switches with Reconfiguration Overhead**

Bin Wu, Kwan Yeung (University of Hong Kong, Hong Kong)

## **Reducing External Speedup Requirements for Input-queued Crossbars**

Michael Berger (Technical University of Denmark, Denmark)

## **B: Routing Protocols, MPLS, and GMPLS II**

**Session Chair: Chin-Tau Lea (HKUST, Hong Kong) Pin-Han Ho (University of Waterloo, Canada)**

### **Path-coupled signaling for NAT/Firewall traversal**

Marcus Brunner, Martin Stiermerling, Miquel Martin (NEC Europe Ltd., Germany),

Ali Fessi (University of Tuebingen, Germany)

### **MIMO Medium Access Control and Routing in Ad Hoc Networks: A Holistic Perspective**

Ming Hu, Junshan Zhang (Arizona State University, USA)

### **An Improved OSPF-TE in GMPLS-Based Optical Networks**

Yong Yin (Beijing University of Posts and Telecommunications, P.R. China),

Geng-Sheng Kuo (National Chengchi University, Republic of China)

## **C: High performance routers/switches architecture II**

**Session Chair: Andrea Bianco (Politecnico di Torino, Italy)**

### **TrueWay: A Highly Scalable Multi-Plane Multi-Stage Switch**

H. Jonathan Chao (Polytechnic University Brooklyn, USA),

Jinsoo Park (Core Networks, USA),

Guansong Zhang, Sertac Artan, Shi Jiang (Polytechnic University, USA)

### **Flow Mapping in the Load Balancing Parallel Packet Switches**

Lei Shi, Wenjie Li, Bin Liu (Tsinghua University, P.R. China)

### **Speedup of Clos Packet Switches that Provide Delay Guarantees**

Aleksandra Smiljanic (AT&T Labs, USA),

Milos Petrovic (Belgrade University, Serbia and Montenegro)

### **An Optical Cross Connect Architecture Based on Planar Lightwave Circuits Switches**

Gerardo Castanon (Monterrey Institute of Technology and Higher Education, Mexico)

## **Session 6 (15:45 – 17:15)**

## **A: Resilience, Protection and Restoration III**

**Session Chair: Hussein Mouftah (University Ottawa, Canada)**

### **A Unified Framework for the Assessment of Recovery Procedures**

Piotr Cholda, Andrzej Jajszczyk, Krzysztof Wajda (AGH University of Science and Technology, Poland)

## **Performance Improvement of Turbo Coded Multi-route Multi-hop Networks using Parity Check Codes**

Tadahiro Wada (Shizuoka University, Japan),  
Nobuyuki Nakagawa, Hiraku Okada (Nagoya University, Japan),  
Abbas Jamalipour (The University of Sydney, Australia, Australia),  
Kouji Ohuchi (Shizuoka University, Japan),  
Masato Saito (Nara Institute of Science and Technology, Japan)

## **Resilient Routing Layers and p-Cycles: Tradeoffs in Network Fault Tolerance**

Tarik Cicic, Amund Kvalbein, Audun Hansen, Stein Gjessing (Simula Research Laboratory, Norway)  
**On Using Forward Error Correction to Provide Protection in Optical Burst Switched Networks**  
Siva Ram Murthy, Praveen Jayachandran, Praveen Bhamidipati (Indian Institute of Technology Madras, India)

## **B: Performance Evaluation and measurement II**

Session Chair: Nei Kato (Tohoku University, Japan)

### **Parameter Impact on the Performance of Partial Label Switching**

Hai Wang (Nanjing Institute of Communications Engineering, P.R. China),  
Chen Jian (Command Automation Institute, P.R. China),  
Shaoren Zheng (Institute of Communication Engineering, P.R. China)

### **On Busrtty Packet Loss Model for TCP Performance Analysis**

Kaiyu Zhou, Kwan Yeung, Victor Li (University of Hong Kong, P.R. China)

### **A Network Properties-Aware Service Model for MANETs**

Wang Xiaomei (Zhengzhou Information Science and Engineering Institute, P.R. China)

### **Performance Analysis of WDM Optical Buffers for Asynchronous Variable Length Packets**

JuanJuan Yan (Beijing University of Posts and Telecommunications, P.R. China),  
Geng-Sheng Kuo (National Chengchi University, Republic of China)

## **C: Quality of Service and Traffic Management I**

Session Chair: Oliver W.W. Yang (University of Ottawa, Canada)

### **Centralized and Distributed Approximation Algorithms for Routing and Weighted Max-Min Fair Bandwidth Allocation**

Miriam Allalouf, Yuval Shavitt (Tel-Aviv University, Israel)

### **A Class-Pining Election (CPE) Scheme for Loop-Free QoS Routing**

Marilia Curado, Edmundo Monteiro (University of Coimbra, Portugal)

### **A Distributed Bandwidth Reservation Algorithm for QoS Routing in TDMA-based Mobile Ad Hoc Networks**

Wenjian Shao, K. S. Chan, Victor Li (University of Hong Kong, P.R. China)

### **Optimal Capacity Provisioning in Multimedia Communication Networks with Random Demand**

Jun Wu, Wuyi Yue (Konan University, Japan),  
Shouyang Wang (Academy of Mathematics and Systems, P.R. China)



**Day 3: May 14, 2005, Saturday**

## **Session 7 (09:35 – 10:35)**

### **A: Switch scheduling IV**

**Session Chair: Maode Ma (Nanyang Technological University, Singapore)**

#### **Evaluation of MMRS and MMRRS Packet Scheduling Algorithms for VOQ Switches under Bursty Packet Arrivals**

[Anna Baranowska](#), [Wojciech Kabacinski](#) (Poznan University of Technology, Poland)

#### **Expelling Policies for Shared Memory Fast Packet Switches With Variable Size Packets of Multiple Priority**

[Kumar Padmanabh](#), [Rajarshi Roy](#) (Indian Institute of Technology, Kharagpur, India)

#### **Analysis of a Flow-Control System for a CICB Packet Switch**

[Zhen Guo](#), [Roberto Rojas-Cessa](#) (NJIT, USA)

### **B: Routing Protocols, MPLS, and GMPLS III**

**Session Chair: Guoliang Xue (Arizona State University, USA)**

#### **Fuzzy logic-based dynamic routing management policies for mobile ad hoc networks**

[Cuirong Wang](#) (Northeast University, P.R. China)

#### **A Self-Learning Route Selection Scheme in an OBS Network**

[Daisuke Ishii](#), [Naoaki Yamanaka](#), [Iwao Sasase](#) (Keio University, Japan)

#### **A Geography-free Routing Protocol for Wireless Sensor Networks**

[Yunhuai LIU](#), [Lionel Ni](#) (Hong Kong University of Science & Technology, Hong Kong)

#### **Non-Cooperative Path Characterisation using Packet Spacing Techniques**

[Supriyo Chakraborty](#), [Bikramjit Walia](#), [D. Manjunath](#) (Indian Institute of Technology, Bombay, India)

### **C: Performance Evaluation and measurement III**

**Session Chair: Olof Hagsand (KTH – Royal Institute of Technology, Sweden)**

#### **Performance Evaluation of Ethernet Resilience Mechanisms**

[Elie Sfeir](#), [Sandrine Pasqualini](#) (Siemens AG, Corporate Technology, Germany),

[Thomas Schwabe](#) (Munich University of technology, Germany),

[Andreas Iselt](#) (Siemens AG, Germany)

#### **Effects of Backup Routes and Cache Timeout Mechanism on Reliable Source Routing in Mobile Ad-hoc Networks**

[Song Guo](#) (University of Ottawa, Canada)

#### **Handoff Performance of TraSH and Mobile IP: Experimental Evaluation**

[Surendra Sivagurunathan](#), [Justin Jones](#), [Mohammed Atiquzzaman](#), [Shaojian Fu](#) (University of Oklahoma, USA),

[Yong-Jin Lee](#) (Woosong University, Republic of Korea)



## Session 8 (11:00 – 12:30)

### A: Wireless networks, Satellite networks, and Mobile ad hoc networks II

Session Chair: Ahmed Kamal (Iowa State University, USA)

#### Distributed Topology Control in Wireless Ad Hoc Networks using beta-Skeletons

Guoliang Xue, Manvendu Bhardwaj, Satyajayant Misra (Arizona State University, USA)

#### An Efficient Elliptic Curve Cryptography Based Authenticated Key Agreement Protocol for the Wireless LAN Security

Mohammad Abdul Azim, Abbas Jamalipour (The University of Sydney, Australia, Australia)

#### Correlative Power Control for Single Channel Ad Hoc Networks

Zhang Jun, Zuyuan Fang, Brahim Bensaou (Hong Kong University of Science and Technology, Hong Kong)

#### Compact Explicit Multi-Path Routing for LEO Satellite Networks

Jianjun Bai (National University of Defense Technology, P.R. China)

### B: Quality of Service and Traffic Management II

Session Chair: Wojciech Kabacinski (Poznan University of Technology, Poland)

#### QoS Provisioning and Traffic Engineering in MPLS-based Next Generation Mobile Wireless Networks

Helen Zhou, Chi-Hsiang Yeh (Queen's University, Canada),

Hussein Mouftah (University of Ottawa, Canada)

#### An embedded solution to IBGP oscillations

Thomas Levy, Olivier Marce, Jean-Luc Lafrayette (ALCATEL, France)

#### Self-Tuning Multiloop PI Rate Controller for an MIMO AQM Router With Interval Gain Margin Assignment

Yang Hong, Oliver W.W. Yang (University of Ottawa, Canada)

#### Lagrangian-Relaxation Based Mesh Traffic Grooming For Network Profit Optimization

Yiming Zhang (University of Ottawa, Canada),

Jing Wu (Communications Research Centre Canada, Canada),

Oliver Yang (University of Ottawa, Canada),

J. Michel Savoie (Communications Research Centre Canada, Canada)

### C: WDM/Optical networks II

Session Chair: Geng-Sheng Kuo (National Chengchi University)

#### Limits on the Traffic Carrying Capacity of All Optical Networks with Ring Topology

Yingzhen Qu, Pramode Verma (The University of Oklahoma, USA)

#### A Novel Optical Storage Area Network Implemented in a Metro WDM Setting

Jaafar Elmoghani, Bernardi Pranggono (University of Wales Swansea, United Kingdom)

#### Survivable Routing and Wavelength Assignment (RWA) in Optical Virtual Private Networks (O-VPNs)

Anwar Haque, Pin-Han Ho (University of Waterloo, Canada)

## **On Factors Affecting the Performance of Dynamically Groomed Optical WDM Mesh Networks**

Mahesh Sivakumar, Krishna Sivalingam (University of Maryland, Baltimore County (UMBC), USA),  
Suresh Subramaniam (The George Washington University, USA)

## ***Poster Presentations***

### **A Comparison of Application-level Multicast Protocols**

Xing Jin, Wan Ching William Wong, Gary Chan, Hoi-Lun Ngan (HKUST, Hong Kong)

### **Blocking Probability of a High-Speed Optical Switching Network in Presence of Component Failures**

Jiang Xiaohong (Japan Advanced Institute of Science and Technology (JAIST), Japan),

Pin-Han Ho (University of Waterloo, Canada),

Susumu Horiguchi (Japan Advanced Institute of Science and Technology, Japan)

### **Measuring Conditional TCP Throughput**

Gianluca Mardente, Marco Mellia, Andrea Bianco (Politecnico di Torino, Italy)

### **OSPF Flooding Process Optimization**

Mikko Pitkanen (Helsinki Institute of Physics, Finland)

### **Time-efficient Near-optimal Wavelength Assignment in Dynamically-reconfigurable WDM Networks**

Dzung Ho-Quang (Information and Communications University (ICU), Republic of Korea)

### **Bandwidth Management and Delay Control over EPONs**

Yuanqiu Luo, Nirwan Ansari (NJIT, USA)

### **A new Fast Packet Classification Algorithm: RC-FST**

Xingye Tan (Beijing University of Posts and Telecommunications, China, P.R. China)

### **Offline Wavelength Assignment in Labelled Optical Burst Switching Networks**

Shan Dong Mei, Mohan Gurusamy, Chua Kee Chiang (NUS, Singapore, Singapore)

### **Fast Fair Arbiter Design in Packet Switches**

Feng Wang, Mounir Hamdi (Hong Kong University of Science and Technology, Hong Kong)

### **BGP-based Inter-domain Traffic Engineering in BGP/MPLS VPNs**

Haiying Liang (Northeastern University, P.R. China)

### **An Efficient Scheduling Mechanism with Flow-Based Packet Reordering in a High-Speed Network Processor**

Beibei Wu, Yang Xu, Bin Liu, Hongbin Lu (Tsinghua University, Republic of China)

### **Impact of Scan-Planes on Memory-Bandwidth Performance of The Sliding-Window Switch**

Sanjeev Kumar (University of Texas--Pan American, USA)

### **Binary Search in a Balanced Tree for IP Address Lookup**

Hyesook Lim, WonJung Kim, Bomi Lee (Ewha Womans University, Republic of Korea)

### **Performance Analysis of Burst Segmentation Schemes Supporting Multiple Traffic Classes**

K. S. Chan, Kwan Yeung (University of Hong Kong, Hong Kong)

### **A Novel Large-Scale AWG-based Single-Hop WDM Network with Collision Avoidance**

Noriaki Kamiyama (NTT Service Integration Laboratories, Japan)

### **A Two-Dimensional Binary Prefix Tree for Packet Classification**

Yeojin Jung, Hyesook Lim (Ewha Womans University, Republic of Korea)

### **Performance Analyses of Regular Networks with limited number of wavelength converters by employing deflection Routing**

Su Fong Chien (Multimedia University, Malaysia)

**Virtual Topology Reconfiguration in Multigranularity Optical Cross-Connect WDM Networks**

Hsiao Yun Yeh, Chien Chen, Ying Yu Chen (National Chiao Tung University, Taiwan)

**Modularized Two-Step Vertical Handoff Scheme in Integrated WWAN and WLAN**

Ying Wang, Pin-Han Ho, Sherman Shen, Shimin Li, Sagar Naik (University of Waterloo, Canada)

**A Simplified Routing and Simulating Scheme for the LEO/MEO Two-Layered Satellite Network**

Zhe Yuan (Beijing University of Aeronautics and Astronautics, P.R. China)

**A New WDM Photonic Cross-Connect Architecture based on Wavelength Exchange Optical Crossbar**

Haitham Hamza, Jitender Deogun (University of Nebraska-Lincoln, USA)

**Performance Modeling of Optical Buffers Supporting Variable Length Packets**

Jianming Liu, Haiping Liu, Tony T. Lee (HKUST)

**Wavelength Sharing Algorithm for Optical Buffers in GMPLS-based WDM Optical Packet-Switched Networks**

Xiaohua Ma (Beijing University of Posts and Telecommunications, P.R. China),

Geng-Sheng Kuo (National Chengchi University, Republic of China)