

Monday 8 October 2007

09:00-10:00 MAM: Keynote 1

Reliable systems from unreliable components: Von Neumann-Shannon Revisited

Iraj Saniee — Bell Laboratories, Alcatel-Lucent, USA

10:00-10:30 Coffee Break

10:30–12:30 MAM-1: WDM networks

Ethernet over WDM: Optimization for resilience and scalability

Andras Kern, Istvan Moldovan, Péter Hegyi and Tibor Cinkler — Budapest University of Technology and Economics, Hungary

Impact of wavelength assignment strategies on hybrid WDM network planning

S. Al Zahr, M. Gagnaire, N. Puech — Ecole Nationale Supérieure des Télécommunications, France

Multi-metrics reconfiguration in core WDM networks

G. Huiban — I3S-CNRS/Inria, France

P. Datta — Los Alamos National Laboratory, USA

A fast heuristic for DWDM routing and grooming

M. Kiese — Munich University of Technology, Germany

A. Autenrieth — Nokia Siemens Networks GmbH, Germany

10:30–12:30 MAM-2: Network design

p-Cycle network design: from fewest in number to smallest in size

D.P. Onguetou, W. Grover — TRILabs, Canada / University of Alberta, Canada

Direct optimal design of a quasi-regular composite-star core network

S. Secci — Politecnico de Milano, Italy / ENST, France

A. Ceselli — Università degli studi di Milano, Italy

F. Malucelli, A. Pattavina — Politecnico di Milano, Italy

B. Sanso — Ecole Polytechnique de Montreal, Canada

ILP approaches to study interconnection strategies for multi-ring networks in the presence of traffic grooming

L.C. Resendo, M.R.N. Ribeiro — Universidade Federal do Espírito Santo, Brasil

J.M. Pedro — Nokia-Siemens Networks S.A, Portugal

J.J.O. Pires — Technical University of Lisbon, Portugal

Overview of resilience mechanisms based on multipath structures

M. Menth, R. Martin — University of Wuerzburg, Germany

A. M.C.A Koster — University of Warwick, UK

S. Orłowski — Zuse Institute, Germany

12:30–14:00 Lunch Break

14:00–15:30 MPM-1: Restoration

Failure-specific p-Cycle network dual-failure restorability design

J. Doucette — University of Alberta, Canada / TRILabs, Canada

W. Li, M. Zuo — University of Alberta, Canada

Resolving a question about span restoration: do loopbacks involve a capacity penalty?

W. Grover — TRILabs, Canada / University of Alberta, Canada

M. Scheffel — Munich University of Technology Institute of Communication Networks, Germany

Power, telecommunications, and emergency services in a converged network world

G. O'Reilly, S.H. Richman — Bell Laboratories, Alcatel-Lucent, USA

A. Kelic — Sandia National Laboratories, USA

14:00–15:30 MPM-2: Routing

Checking for optimal egress points in iBGP routing

M.-O. Buob — France Telecom R&D, France / LERIA, France

M. Meulle — France Telecom R&D, France

S. Uhlig — Delft University of Technology, The Netherlands

A distributed scheme for inter-domain routing optimization

A. Tomaszewski, M. Mycek — Warsaw University of Telecommunications, Poland

M. Pioro — Warsaw University of Telecommunications, Poland / Lund University, Sweden

Implementation and performance evaluation of a multi-path incremental shortest path algorithm in quagga routing software

V. Eramo, A. Cianfrani, M. Listanti — University of Roma "La Sapienza", Italy

15:30-16:00 Coffee Break

16:00-18:00 MPM-3: Reliability

Exact two-terminal reliability of some directed networks

C. Tanguy — France Telecom R&D, France

Reliability analysis of distributed three-tier systems with P2P proxy agent

M. Bruti — Telecom Italia Sparkle S.p.A., Italy

Risk-based incremental survivable network design

K. Vajanapoom, D. Tipper — University of Pittsburgh, USA

Improving network reliability by avoiding misconfiguration

D. Buchmann, D. Jungo, U. Ultes-Nitsche — University of Fribourg, Switzerland

16:00-18:00 MPM-4: OR techniques in network design

The k -edge connected subgraph problem: valid inequalities and branch and cut

F. Bendali, I. Diarrassouba, A.R. Mahjoub — LIMOS / Université Blaise Pascal, France

M. D. Biha — Université d'Avignon, France

J. Mailfert — Université d'Auvergne, France

A column generation approach for design of networks using path-protecting p-Cycles

B. Jaumard — GERAD / Concordia University, Canada

C. Rocha — Université de Montreal

D. Baloukov, W. Grover — TRILabs / University of Alberta, Canada

k -splittable delay constrained routing problem: a branch and price approach

J. Truffot, C. Duhamel, P. Mahey — LIMOS / Université Blaise Pascal, France

Integrally indecomposable polytopes and the survivable network design problem

E. Eisenschmidt, M. Koeppe — Otto von Guericke University, Magdeburg, Germany

Tuesday 9 October 2007

09:00-10:00 TAM: Keynote 2

Combinatorial Models of Network Reliability

Charles Colbourn — Computer Science, Arizona State University, USA

10:00-10:30 Coffee Break

10:30-12:30 TAM-1: Availability

Incremental availability evaluation model for p -Cycle protected connections

J. Szigeti, T. Cinkler — Budapest University of Technology and Economics, Hungary

High availability survivable networks: when is reducing MTTR better than adding protection capacity?

W. Grover — TRILabs / University of Alberta, Canada

A. Sack — TELUS, Canada

Provision of connection-specific availability guarantees in communication networks

A. Mykkeltveit, B. Helvik — Norwegian University of Science and Technology, Norway

Availability improvement by dynamic path provisioning in dual-homing multilayer networks

D. Schupke, C. Gruber — Nokia Siemens Networks GmbH, Germany

10:30-12:30 TAM-2: Planning

Impact of reliability constraints and operational expenses on equipment planning

K. Casier, D. Colle, S. Verbrugge, P. Demeester — Ghent University, Belgium

R. Meersman — COMSOF, Belgium

Evaluation of survivable Ethernet over WDM network architectures in metro ring network

G. Baier, T. Engel, A. Autenrieth — Nokia Siemens Networks GmbH & Co KG, Germany

Quantitative Evaluation of Architectures for Multilayer Transport Networks

R. Huelsermann, M. Jaeger, A. Betker, M. Dueser, F.-J. Westphal, A. Gladisch — T-Systems Enterprise Services GmbH, Germany

Exploiting connection-holding time for an efficient dynamic traffic grooming

M. Tornatore, A. Baruffaldi, A. Pattavina — Politecnico di Milano, Italy

H. Zhu — Blade Network Technologies, USA

B. Mukherjee — University of California, USA

12:30-14:00 Lunch Break

14:00-16:00 TPM-1: Management software

Resilient data communication for control planes

G. Grammel - Alcatel-Lucent, Germany

Map of relaying messages (MORM) - An approach of message distribution enabling network advertisement and discovery

D. Zhou — Siemens IT Solutions & Services, Austria

N. Akhtar, Y. Wang, K. Moessner — University of Surrey, UK

D. Migault — France Telecom R&D, France

A Composition language for programmable traffic flow monitoring in multi-service self-managing networks

R. Chaparadza — Fraunhofer FOKUS, Germany

14:00-16:00 TPM-2: Robustness

A simple robust routing scheme

A. Bashllari, D. Nace — Université de Technologie de Compiègne, France

E. Gourdin, O. Klopfenstein — France Telecom R&D, France

Between fully dynamic routing and robust stable routing

W. Ben Ameer — GET/INT, France

A model for robust capacity planning for telecommunications networks under demand uncertainty

A. Ouorou — France Telecom R&D, France
J.-Ph Vial — ORDECSYS, Switzerland

15:30-16:00 Coffee Break

16:00-18:00 TPM-3: Protection

Factors affecting the efficiency of demand-wise shared protection

B. Forst, W. Grover — TRILabs / University of Alberta, Canada

Failure specific self-protecting multipaths – increased capacity savings or overengineering?

M. Menth, R. Martin, U. Spoerlein — University of Wuerzburg, Germany

Suitability of minimum interference routing schemes with protection

E. Calle, J.E. Marzo, A. Urrea, P. Vila — University of Girona, Spain

Protection for adaptive multi-layer traffic engineering

T. Cinkler, P. Hegyi, G. Geleji, J. Szigeti — Budapest University of Technology and Economics, Hungary

16:00-18:00 TPM-4: Design

A multicast QoS control scheme and system in EPON system

Y. Nie — Hitachi Research & Development Corporation, China

Design and performance evaluation of protected super-EPON access networks using a dedicated protection ring architecture

João Santos, O. Quantos, J. Pires, J. Pedro — Technical University of Lisbon, Portugal

Integrated method for organization of wireless sensor networks with mobile sinks

W. Aioffi, F. Quintão, G. R. Mateus — Federal University of Minas Gerais, Brazil

Globally optimal distributed synchronous batch reconfiguration for efficient hazard-free dynamic provisioning

W. Grover — TRILabs / University of Alberta, Canada

Wednesday 10 October 2007

09:00-10:00 WAM: Keynote 3

Quantitative Estimations on Performance in IP/MPLS Network Operations

Dimitri Papadimitriou — Alcatel-Lucent, Belgium

10:00_10:30 Coffee Break

10:30_12:30 WAM-1: Optical Networks

Comparative study of fully pre-cross-connected protection architectures for transparent optical networks

A. Grue, W. Grover, J. Doucette, B. Forst, D. Onguetou, D. Baloukov — TRILabs / University of Alberta, Canada

M. Clouqueur, D. Schupke — Nokia Siemens Network GmbH, Germany

Optimal placement of monitoring equipment in transparent optical networks

C. M. Machuca, M. Kiese — Munich University of Technology, Germany

Influence of protection on cost savings in transparent optical networks

D. Staessens, D. Colle, I. Lievens, M. Pickavet, P. Demeester — University of Ghent, Belgium

ROADM design for OMS-DPRing in GMPLS-based optical networks

L. Velasco, S. Spadaro, J. Comellas, G. Junyent — Universitat Politecnica de Catalunya, Spain

10:30-12:30 WAM-2: IP & GMPLS networks

Robust pre-provisioning of local protection resources in MPLS networks

O. Klopfenstein — France Telecom R&D, France

Experimental shared path protection algorithms in distributed all-optical GMPLS-based networks

R. Martinez, R. Munos, R. Casellas — Centre Tecnologic de Telecommunications de Catalunya, Spain
J. Comellas, G. Junyent — Universitat Politecnica de Catalunya, Spain

Optimization of resilient weight systems for shortest-path routing in IP networks

M. Dzida, M. Zagodzón — Warsaw University of technology / Research & Development Center of Polish Telecom, Poland

M. Pioro — Warsaw University of Technology, Poland / Lund University, Sweden

12:30-14:00 Lunch Break

14:00-15:30 WPM-P: Panel Discussion

Single layer versus multi-layer recovery techniques in core networks

Moderator: JP. Vasseur, Cisco, USA

15:30-16:00 Closing Session