2006

11th International Workshop on Computer-Aided Modeling, Analysis and Design of Communication Links and Networks

Trento, Italy (June 8-9, 2006)
# Table of Contents

**Designing Cross-Layering Solutions for Wireless Networks: a General Framework and Its Application to a Voice-over-WiFi Scenario**  
by Fabrizio Granelli and Michael Devetsikiotis  
p. 1

**On the Exploitation of User Aggregation Strategies in Heterogeneous Wireless Networks**  
by Leonardo Badia, Nicola Bui, Marco Miozzo, Michele Rossi, and Michele Zorzi  
p. 8

**An Improved Scheme for the Integration of Mobile Ad Hoc Networks into the Internet without Dedicated Gateways**  
by Alicia Trivino-Cabrera, Eduardo Casilari-Perez, and Francisco Javier González-Canete  
p. 16

**Enhancing Reliable Multicast Transport to Mitigate the Impact of Blockage**  
by Stephen Bush, Praveen Kumar Gopala, and Orhan Imer  
p. 22

**On the Modelling and Performance Evaluation of Optical Burst-Switched Networks**  
by Joao Pedro, Jorge Castro, Paulo Monteiro, and Joao Pires  
p. 30

**A Packet-level Characterization of Network Traffic**  
by Alberto Dainotti, Antonio Pescape’, and Giorgio Ventre  
p. 38

**Improving Quality of Service for Switched Processing Systems**  
by Ying-Chao Hung and George Michailidis  
p. 46

**A Polyharmonic Periodic Broadcasting Protocol for Clients with Bandwidth Limitation**  
by Rogerio Zafalao and Nelson L. S. da Fonseca  
p. 54

**Ensuring IP Services Consistency through Lightweight Monitoring-based Admission Control**  
by Solange Lima, Paulo Carvalho, and Vasco Freitas  
p. 59

**Nessi: A Python Network Simulator for Fast Protocol Development**  
by Jerome Vernez, Juergen Ehrensberger, and Stephan Robert  
p. 67

**Design, Development and Validation of an NS2 Module for Dynamic LSP Rerouting**  
by Davide Adami, Christian Callegari, Daniele Ceccarelli, Stefano Giordano, and Michele Pagano  
p. 72
Simulations of Fractional Degradation in Performance of Terrestrial Networks due to Interference by High-Altitude Platforms
by Vasilis Milas and Philip Constantinou  

Modeling technique and a simulation tool for analysis of clock synchronization in communication networks
by M. A. Bueva, L. N. Schelovanov, Galina Antonova, and Augusto Ciuffoletti  

P2PRealm - Peer-to-Peer Network Simulator
by Niko Kotilainen, Mikko Vapa, Annemari Auvinen, Jarkko Vuori, and Teemu Keltanen  

Long-term Capacity Planning of WDM Transport Networks Under Demand Uncertainties and Economy of Scale
by Karen Guan and Chi Guan  

Performance Evaluation of VSQ: A Fair MAC Scheme For Packet Ring Networks
by Helen Tang, Ioannis Lambadaris, and Hamid Mehrvar  

The Application of Bandwidth Optimization Technique in SLA Negotiation Process
by Srecko Krile and Djuro Kuzumilovic  

Security Issues and Performance Study of Key Management Techniques over Satellite Links
by Gokcen Arslan and Fatih Alagoz  

Three-Tier Satellite Multicast Security Protocol Based on ECPM and IMC Methods
by Attila Yavuz, Fatih Alagoz, and Emin Anarim