

1. Record Nr.	UNISA996465654903316
Titolo	Optical network design and modeling : 11th International IFIP-TC6 Conference, ONDM 2007, Athens, Greece, May 29-31, 2007, proceedings / / Ioannis Tomkos [and four others] (editors)
Pubbl/distr/stampa	Berlin ; ; Heidelberg ; ; New York : , : Springer-Verlag, , [2007] ©2007
ISBN	3-540-72731-0
Edizione	[1st ed. 2007.]
Descrizione fisica	1 online resource (XI, 460 p.)
Collana	Lecture notes in computer science ; ; 4534
Disciplina	621.381045
Soggetti	Optical communications Computer networks Fiber optics Optoelectronics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	"The 11th International Conference on Optical Network Design and Modeling ... ONDM 2007"--Pref.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Performance Comparison of Multi-wavelength Conversion Using SOA-MZI and DSF for Optical Wavelength Multicast -- 80Gb/s Multi-wavelength Optical Packet Switching Using PLZT Switch -- 2x2 Bismuth-Oxide-Fiber Based Crossbar Switch for All-Optical Switching Architectures -- Impact of Transient Response of Erbium-Doped Fiber Amplifier for OPS/WDM and Its Mitigation -- Mutual Impact of Physical Impairments and Grooming in Multilayer Networks -- Impairment Aware Based Routing and Wavelength Assignment in Transparent Long Haul Networks -- MatPlanWDM: An Educational Tool for Network Planning in Wavelength-Routing Networks -- Centralized vs. Distributed Approaches for Encompassing Physical Impairments in Transparent Optical Networks -- All-Optical Signal Processing Subsystems Based on Highly Non-linear Fibers and Their Limitations for Networking Applications -- A Low Cost Migration Path Towards Next Generation Fiber-To-The-Home Networks -- Securing Passive Optical Networks Against Signal Injection Attacks -- Novel Passive Optical Switching Using Shared Electrical Buffer and Wavelength Converter -- 160 Gbps Simulation of a Quantum Dot Semiconductor Optical

Amplifier Based Optical Buffer -- SIP Based OBS networks for Grid Computing -- Job Demand Models for Optical Grid Research -- Experimental Implementation of Grid Enabled ASON/GMPLS Networks -- Reservation Techniques in an OpMiGua Node -- R & Ds for 21st Century Photonic Network in Japan -- Optical Burst Switching Network Testbed -- TCP Traffic Analysis for Timer-Based Burstifiers in OBS Networks -- TCP Performance Experiment on LOBS Network Testbed -- Improvement of TCP Performance over Optical Burst Switching Networks -- Routing Optimization in Optical Burst Switching Networks -- Performance Analysis of Routing Algorithms for Optical Burst Switching -- Transport Plane Resource Discovery Mechanisms for ASON/GMPLS Meshed Transport Networks -- A Study of Connection Management Approaches for an Impairment-Aware Optical Control Plane -- An Automatic Model-Based Reconfiguration and Monitoring Mechanism for Flexible GMPLS-Based Optical Networking Testbeds -- Clustering for Hierarchical Traffic Grooming in Large Scale Mesh WDM Networks -- Grooming-Enhanced Multicast in Multilayer Networks -- MUPBED - Interworking Challenges in a Multi-Domain and Multi-Technology Network Environment -- Rule-Based Advertisement and Maintenance of Network State Information in Optical-Bearred Heterogeneous Networks -- Enhanced Parallel Iterative Schedulers for IBWR Optical Packet Switches -- A New Algorithm for the Distributed RWA Problem in WDM Networks Using Ant Colony Optimization -- Optical IP Switching for Dynamic Traffic Engineering in Next-Generation Optical Networks -- An Efficient Virtual Topology Design and Traffic Engineering Scheme for IP/WDM Networks -- Optical Packet Buffers with Active Queue Management -- Segmentation-Based Path Switching Mechanism for Reduced Data Losses in OBS Networks -- Towards Efficient Optical Burst-Switched Networks without All-Optical Wavelength Converters -- New Assembly Techniques for Optical Burst Switched Networks Based on Traffic Prediction -- A Novel Burst Assembly Algorithm for Optical Burst Switched Networks Based on Learning Automata -- Fast and Effective Dimensioning Algorithm for End-to-End Optical Burst Switching Networks with ON-OFF Traffic Model -- Prudent Creditization Polling (PCP): A Novel Adaptive Polling Service for an EPON -- Adaptive Mobile Spot Diffusing Transmitter for an Indoor Optical Wireless System -- Extra Window Scheme for Dynamic Bandwidth Allocation in EPON -- Cost Versus Flexibility of Different Capacity Leasing Approaches on the Optical Network Layer -- A Bayesian Decision Theory Approach for the Techno-Economic Analysis of an All-Optical Router -- Regenerator Placement with Guaranteed Connectivity in Optical Networks -- Optimal Routing for Minimum Wavelength Requirements in End-to-End Optical Burst Switching Rings.

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## Sommario/riassunto

The optical networking field is seen to be rapidly emerging with a strong and sustained technological and business growth. Research has led to massive development and deployment in the optical networking space leading to significant advancements in high speed network core and access networks. The 11 International Conference on Optical Network Design and Modeling brought together scientists and researchers to meet and exchange ideas and recent work in this emerging area of networking. The conference was sponsored by IFIP and supported by the e-Photon/ONE and COST 291 projects. The conference proceedings have been published by Springer and are also available through the Springer digital library. The conference program featured 14 invited presentations and 41 contributed papers selected from over 90 submissions. A series of sessions focusing on recent developments in optical networking and the related technology issues

constituted the main conference program. The international workshop “Optical network perspectives vs. optical technologies th reality” was collocated with ONDM 2007 and took place on May 29 . It was org-ized by the EU COST 291 action. The objective of the workshop was to focus on cross layer issues and address various challenges with respect to the implementation of optical networking concepts based on available optical technology capabilities.

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