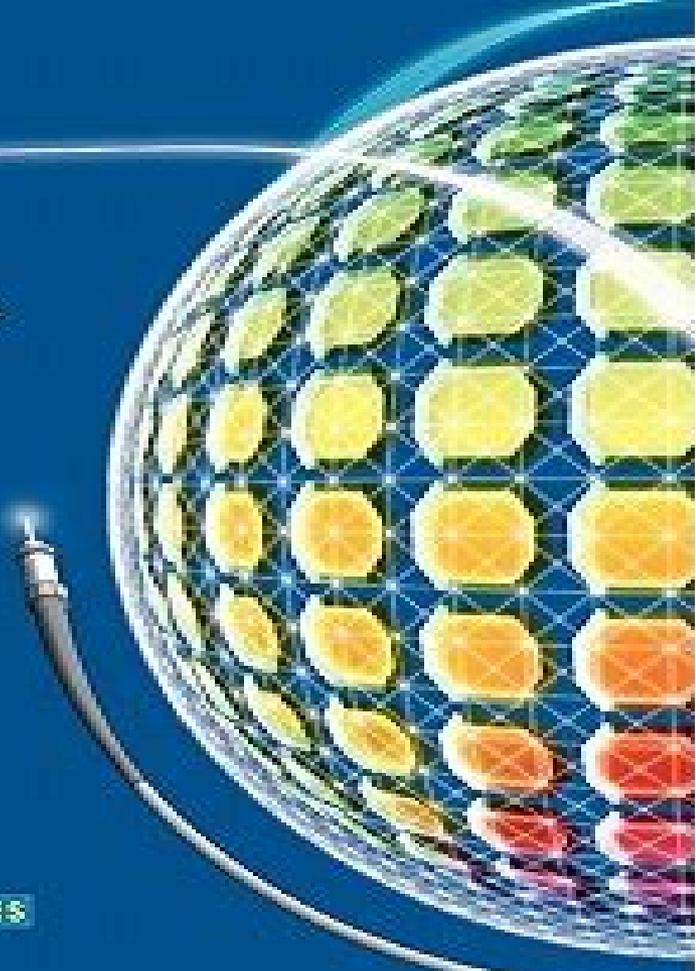




Traffic Grooming in
Optical
WDM Mesh Networks

Keyao Zhu
Hongyue Zhu
Biswanath Mukherjee



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Traffic Grooming in Next-generation Optical WDM Mesh Networks Wang Yao, 2005 Optical WDM Networks

Hongyue Zhu,2005 **Traffic Grooming for Optical Networks** Rudra Dutta,Ahmed E. Kamal,George N. Rouskas,2008-08-06 The objective of this book is to provide timely and comprehensive coverage of the principles technology practice and future of tra c grooming in op cal networks Tra c grooming considerations are already shaping new switch designs and standards including next generation Synchronous Optical N work Synchronous Digital Hierarchy SONET SDH and Generic Framing Procedure GFP are a ecting future optical network technologies and are creating new business opportunities Yet information on the topic is sc tered and there is a shortage of technical sources where relevant material can be accessed in a single location The motivation for this book was to bridge this gap by providing a single authoritative point of reference to the tra c grooming state of the art Tra c grooming is a complex subject involving a number of interrelated concepts standards and technologies It is also a rapidly growing eld of study makingitdi cultforasinglebooktocoverallaspectsindetail Tocope with this scope and complexity this book provides appropriate background information followed by an in depth study of a few key issues and challenges It has been our intention to bring together a broad range of perspectives from preeminent researchers in both academia and industry We believe that these multiple diverse points of view add considerable value and make the contents more interesting to the reader

Minimization of Overall Blocking Probability for Traffic Grooming in Optical WDM Mesh Networks □□□,2003

Handbook of Optimization in Telecommunications Mauricio G.C. Resende,Panos M. Pardalos,2008-12-10 This comprehensive handbook brings together experts who use optimization to solve problems that arise in telecommunications It is the first book to cover in detail the field of optimization in telecommunications Recent optimization developments that are frequently applied to telecommunications are covered The spectrum of topics covered includes planning and design of telecommunication networks routing network protection grooming restoration wireless communications network location and assignment problems Internet protocol World Wide Web and stochastic issues in telecommunications The book s objective is to provide a reference tool for the increasing number of scientists and engineers in telecommunications who depend upon optimization **Design and Analysis of Traffic-groomable Optical WDM Networks** Keyao Zhu,2003 **Advances in**

Evolutionary Computing for System Design Vasile Palade,Dipti Srinivasan,2007-07-07 Evolutionary computing paradigms offer robust and powerful adaptive search mechanisms for system design This book s thirteen chapters cover a wide area of topics in evolutionary computing and applications including an introduction to evolutionary computing in system design evolutionary neuro fuzzy systems and evolution of fuzzy controllers The book will be useful to researchers in intelligent systems with interest in evolutionary computing as well as application engineers and system designers **IT Convergence and Services** James J. Park,Hamid Arabnia,Hang-Bae Chang,Taeshik Shon,2011-11-01 IT Convergence and Services is proceedings of the 3rd FTRA International Conference on Information Technology Convergence and Services ITCS 11 and the FTRA International Conference on Intelligent Robotics Automations telecommunication facilities and applications IRoA

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Computational Science and Its Applications - ICCSA 2006 Osvaldo Gervasi,Vipin Kumar,C.J. Kenneth Tan,David Taniar,Antonio Laganà,Youngsong Mun,Hyunseung Choo,2006-05-11 The five volume set LNCS 3980 3984 constitutes the refereed proceedings of the International Conference on Computational Science and Its Applications ICCSA 2006 The volumes present a total of 664 papers organized according to the five major conference themes computational methods algorithms and applications high performance technical computing and networks advanced and emerging applications geometric modelling graphics and visualization information systems and information technologies This is Part II

IEEE Workshop on High Performance Switching and Routing ,2005 Reconfigurable Traffic Grooming with Differentiated Reliability in DWDM Mesh Networks Weiwei Hu,2010 Optical networks employing wavelength division multiplexing technology have been well recognized as the core networks for the next generation Internet In such networks any fiber cut or node failure may lead to huge data loss Thus reliability is of great importance in the design of modern high speed networks At the same time traffic grooming is another important design objective since it addresses multi granularity traffic The traditional routing approaches with differentiated services do not consider the traffic grooming case or reconfiguration method Therefore they are not resource efficient for the next generation Internet In this dissertation an effective reconfigurable traffic grooming with differentiated reliability scheme is proposed to efficiently use network resources Compared with the conventional rerouting method the proposed scheme makes the network more robust and immune from service interruptions An integer linear programming ILP formulation is presented first By solving the ILP

formulation an optimal solution is obtained for each incoming connection request However the solution is so time consuming a heuristic algorithm is introduced to get an approximate optimal solution The performance evaluation indicates that the connection blocking probability can be decreased greatly by the proposed scheme

Design and Analysis of Survivable Optical Networks Canhui (Sam) Ou,2004 **Optical Networking** ,2001 **Design and Analysis of Optical WDM Metropolitan and Wide-area Networks** Jian Wang,2002 International Conference on Transparent Optical Networks ,2003 **Network Architectures, Management, and Applications** ,2005 Fiber Optic Components, Subsystems, and Systems for Telecommunications Suning Tang,Xiaomin Ren,2001 Proceedings ,2003

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