

Curriculum Vitae

Daniel J. Blumenthal

Distinguished Professor
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EDUCATION

Ph.D.	Electrical Engineering	University of Colorado	Boulder, CO	1993
M.S.	Electrical Engineering	Columbia University	New York, NY	1988
B.S.	Electrical Engineering	University of Rochester	Rochester, NY	1981

EMPLOYMENT HISTORY

Distinguished Professor	UC Santa Barbara	Santa Barbara, CA	2021-Present
Director	Terabit Optical Ethernet Center, UCSB	Santa Barbara, CA	2010-Present
Professor	UC Santa Barbara	Santa Barbara, CA	2000-2021
Director of Engineering	Coriant Advanced Technologies (CAT)	Santa Barbara, CA	2015-2016
CTO	Packet Photonics, Inc.	Santa Barbara, CA	2014-2015
Associate Director	Multidisciplinary Optical Switching Technology (MOST) Center	Santa Barbara, CA	1997 – 2001
Associate Professor	UCSB	Santa Barbara, CA	1997-2000
Assistant Professor	Georgia Institute of Technology	Atlanta, GA	1993-1997
Graduate Researcher	University of Colorado	Boulder, CO	1990-1993
Research Engineer	University of Pennsylvania	Philadelphia, PA	1988-1990
Research Engineer	Columbia University	New York, NY	1985-1988
Senior Engineer	Sievers Research Inc	Boulder, CO	1984-1985
Engineer	StorageTek	Louisville, CO	1981-1984

HONORS AND AWARDS

Recipient	C. E. K. Mees Medal, Optical Society of America	2020
Founding University Affiliate	Microsoft Optical for the Cloud Initiative	2019
Fellow	National Academy of Inventors (NAI)	2017
Visiting Faculty Researcher	Microsoft Research (MSR) Cambridge, U.K.	2017
Education and Outreach Committee	Santa Barbara Bowl Foundation, Santa Barbara, CA	2016-2019
Board of Directors	Unite to Light (Non-Profit), Santa Barbara, CA	2016-2017
Board Member (Elected)	Researcher Seat on the Internet-2 Architecture & Operations Advisory Council	2008 - 2012
Fellow	Optical Society of America (OSA)	2006
Primary Member (PI)	NSF MFREC GENI Planning Group (a \$350M NSF National networking infrastructure).	2003-2007
Board of Directors	National LambdaRail, Inc. (NLR)	2003 - 2010
Fellow	IEEE/LEOS/Communications Society	2003
Presidential Early Career Award for Scientists and Engineers (PECASE)	White House/DOD	1999
Best Transactions Paper Award	IEEE Education Society	1999
Young Investigator Program (YIP)	Office of Naval Research	1997

Senior Member	IEEE	1997
Chairman	Atlanta Chapter of the LEOS/ED Society	1996-1997
National Young Investigator (NYI)	National Science Foundation	1994
Secretary	Atlanta Chapter of the LEOS Society	1994-1995
North American Representative	IEEE/COMSOC Coord. Committee for OFC	1993

COMPANIES FOUNDED

SinOptiQ	Santa Barbara, CA	Founded 2022
Packet Photonics	Santa Barbara, CA	Founded 2007
Calient Networks	Santa Barbara, CA	Founded 1999

CONSULTING

Expert Witness and IP Consulting		2013 to Present
Coriant Advanced Technologies (CAT)	Santa Barbara, CA	2016 to 2017
Packet Photonics	Santa Barbara, CA	2007 to 2014
Aurrion, Inc.	Santa Barbara, CA	2011 to 2012
BBN	Cambridge, MA	2008 to 2013
Luminit	Torrence, CA	2007 to 2013
Tellabs	Boston, MA	2007
Sun Microsystems	Santa Clara, CA	2004 - 2006
Calient Networks	Santa Barbara, CA	1999-2003
Gannon, Inc.	Chicago, IL	1997-1998
Siemens Corporate Research	Princeton, NJ	1993
Bernoulli/Iomega	Boulder, CO	1991-1993

PUBLICATION SUMMARY (REFEREED AND INVITED)

Books and Book Chapters	8
Invited Journal Publications and Articles	20
Keynote, Plenary and Invited Presentations	102
Postdeadline Conference Papers	9
Journal Publications	147
Conference Papers	238
Total	524

PATENT SUMMARY

Total Issued U.S. Patents: 23

	US Patent No.	Issuance Date	Title
1	7,379,668	4/2/02	Optical Amplification in Photonic Switched Crossconnect Systems
2	6,643,425	11/4/03	Optical Switch Having Switch Mirror Arrays Controlled by Scanning Beams
3	6,697,547	2/24/04	Wavelength Power Equalization by Attenuation in an Optical Switch
4	6,778,739	8/17/04	Wavelength Selective Optical Switch with Aligned Input and Output Substrates
5	6,792,177	9/14/04	Optical Switch with Internal Monitoring
6	6,912,359	6/28/05	Methods for Monitoring Performance in Optical Networks
7	7,050,717	5/23/06	System and Method of All Optical Label Swapping Using Two-Stage Optical Wavelength Converters
8	7,142,744	11/28/06	Wavelength Power Equalization by Attenuation in an Optical Switch
9	7,184,189	2/27/07	Apparatus for Simultaneous OTDM Demultiplexing, Electrical Clock Recovery and Optical Clock Generation, And Optical Clock Recovery
10	7,196,833	3/27/07	Apparatus for Simultaneous OTDM Demultiplexing, Electrical Clock Recovery and Optical Clock Generation, And Optical Clock Recovery
11	7,310,363	12/18/07	Integrated Wavelength Tunable Single and Two-Stage All-Optical Wavelength Converter
12	8,644,713	2/4/14	Optical Burst Mode Clock and Data Recovery
13	9,285,540	3/15/16	Integrated Dielectric Waveguide and Semiconductor Layer and Method Therefor
14	9,370,123	6/14/16	System and Methods for Reduced Power Consumption and Heat Removal in Optical and Optoelectronic Devices and Subassemblies
15	9,385,814	7/5/16	Wavelength Tunable Arrays for Data Communications
16	9,407,426	8/2/16	Optical Network Interface, Module and Engine
17	9,413,521	8/9/16	Programmable Optical Subassemblies and Modules
18	9,438,355	9/6/16	Control Systems for Optical Devices and Subassemblies
19	9,543,737	1/10/17	Fast Calibration and Programming Optical Components
20	9,638,859	5/2/17	Optical Fiber Alignment Device
21	9,755,753	9/5/17	Tunable U-Laser Transmitter with Integrated Mach-Zehnder Modulator
22	9,817,197	11/14/17	Optically Aligned Hybrid Semiconductor Device and Method
23	10,222,565	3/5/19	Optically Aligned Hybrid Semiconductor Device and Method

EDITING JOURNALS

Editorial Board	Nature, Light, Science & Applications (LSA)	2022 - 2025
Primary Guest Editor	IEEE Journal on Selected Area in Quantum Electronics (JSTQE) Special Issue on Ultra Low-Loss Optical Waveguides	2018
Associate Editor	IEEE Photonics Technology Letters (PTL)	2000-2004
Associate Editor	IEEE Photonics Technology Letters (PTL)	1997-2000
Associate Editor	SPIE Optical Networks Magazine	2001 – 2008
Guest Editor	IEEE Journal on Selected Area in Quantum Electronics (JSTQE) Special Issue on High Speed Integrated Photonics	2007
Primary Guest Editor	IEEE Journal on Selected Areas in Communications Special Issues on Optoelectronic and Optical Routers	2002
Associate Editor	IEEE Transactions on Communications	1996-2000
Primary Guest Editor	IEEE Journal of Lightwave Technology (JLT) Special Issue on Photonic Packet Switching	1998

PROFESSIONAL ACTIVITIES

Topical Meeting Organizer	IEEE Summer Topical Meeting on “Visible Light Integrated Photonics and Application to Atomic and Quantum Sensing, Communications, and Computing (VLIP)”	2023
Symposia Organizer	OFC Symposium on “Ultra-Stable Frequency Sources and their Future Applications in Telecom I”	2023
Subcommittee Chair	S2, Optical Fiber Communications OFC 2019, San Diego, CA	2021
Steering Committee	WOMBAT International Meeting on Interactions Between Light and Sound	2019-present
Evaluator	IEEE Photonics Society Fellow Evaluating Committee	2020
Traveling Faculty Lecturer	Optical Society of America (OSA)	2019-present
Committee Member	Optical Society of America (OSA) Corning Women in Optical Communication Scholarship	2018-2019
Committee Member	National Academy of Inventors (NAI) Fellow Advisory Committee	2018 - 2021
Committee Member	National Academy of Inventors (NAI) Senior Member Advisory Committee (SMAC)	2019
TPC Member	Optical Fiber Communications OFC	1997-2000, 2018-2020
Workshop Organizer	OFC Workshop on “Super DACs and ADCs – To interleave or not to interleave?” OFC 2019 San Diego, CA	2019
Workshop Organizer	OFC Workshop on “Beyond Silicon Photonics,” OFC 2018 San Diego, CA	2018
TPC Member	Topical Meeting on Photonics in Switching	1995,1997, 2008-2010, 2012, 2014, 2015
TPC Member	25th International Conference on Indium Phosphide and Related Materials (IPRM) Kobe, Japan on May 20-23	2013
General Program Chair	IEEE Photonics Society First Topical Meeting on Terabit Optical Ethernet	2011
TPC Member	IEEE Photonic Society Topical Meeting on Photonics for Routing and Interconnects	2010
Session Chair	First Asian Himalayas International Conference on Internet AH-ICI2009	2009
Steering committee	Opto-Electronics and Communications Conference (OECC) and the Australian Conference on Optical Fibre Technology (ACOFT)	2008 2008
TPC Member	ACM/IEEE 4 th Symposium on Architectures for Networking and Communications Systems (ANCS)	2008
TPC Member	ONS Subcommittee, LEOS Annual Meeting	2007
TPC Member	FiWi SubCom Meeting at ICC/Globecom, Glasgow, UK	2007
TPC Member	APOC03: Optical Transmission, Switching And Subsystems, Nov. 5-9, Wuhan, China	2007

TPC Member	IEEE/LEOS Topical Meeting on Optical Networks and Systems	2007
TPC Member	3rd ACM/IEEE Symposium on Architectures for Networking and Communications Systems (ANCS)	2007
Guest Editor	IEEE Journal on Selected Areas in Quantum Electronics (JSTQE) Special Issue on High Speed Integrated Photonics	2006 – 2007
TPC Member	OSA Nonlinear Photonics Meeting, Nonlinear Devices and Systems	2006 - 2007
Committee Member	LEOS Board of Governors Long Range Strategic Planning for Publications	2006 - 2007
Subcommittee Chair	IEEE/LEOS Semiconductor Laser Workshop	2006
Co-Organizer	International Workshop on the Future of Optical Networking	2006
TPC Member	SIGCOMM	2006
Workshop Organizer	National Science Foundation (NSF) Workshop on Optical Networking and Communications, UCSB	2005
TPC Member	European Conference on Optical Communications (ECOC)	2004 - 2005
TPC Member	LEOS Annual Meeting	2005
Executive Committee	CoRE UC Discovery	2004 - 2005
TPC Member	4 th International Workshop on Optical Burst Switching	2005
Guest Editor	IEEE Journal on Selected Areas in Quantum Electronics	2005
TPC Member	IQEC/CLEO Pacific Rim	2005
TPC Member	3 rd International Workshop on Optical Burst Switching	2004
TPC Member	IASTED International Conference on Optical Communications Systems and Networks (OCSN)	2004
Guest Editor	IEEE Journal on Selected Areas in Communications (JSAC) Special Issues on Optoelectronic and Optical Routers	2002
General Co-Chair	LEOS Topical Meeting on Advance Semiconductor Lasers and their Applications (ASLA)	2001
TPC Member	Hot Interconnects VIII	2001
General Conference Chair	OSA Topical Meeting on Photonics in Switching	2001
TPC Member	Opticom 2000	2000
General Chair	Optical Summit, Sante Fe, NM	2000
Program Committee Chair	OSA Top. Mtg. on Photonics in Switching	1999
Program Committee Chair	Optical Internetworking Conference	1999
Workshop Organizer	OFC Workshop on Optical Signal Processing for Optical Networks	2000
TPC Member	Conference on Lasers and Electrooptics (CLEO) North America	1999-2001
TPC Member	IEEE/LEOS Topical Meeting on WDM Component Technologies	1997
TPC Member	IEEE/LEOS Topical Meeting on Optical Networks and their Enabling Technologies	1994
Chair	Atlanta Chapter of the LEOS/ED Society	1995-1997
Secretary	Atlanta Chapter of the LEOS Society	1994-1995
North American Representative	IEEE/COMSOC Coord. Committee for OFC	1993
Subcommittee Chair	S2, Optical Fiber Communications OFC 2019, San Diego, CA	2021
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Committee Member	Optical Society of America (OSA)	2018-2019
Committee Member	Corning Women in Optical Communication Scholarship National Academy of Inventors (NAI) Fellow Advisory Committee	2018 - 2021
Committee Member	National Academy of Inventors (NAI) Senior Member Advisory Committee (SMAC)	2019
TPC Member	Optical Fiber Communications OFC	1997-2000, 2018-2020

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