

Curriculum Vitae Stepan Lucyszyn



Nationality: British
 Date of Birth: 28th August 1965

Languages: English (*native speaker*)
 Japanese (*basic level*)

Titles of Present Posts: *Professor of Millimetre-wave Systems*
Director of Centre for Terahertz Science and Engineering

Work Address: *Optical and Semiconductor Devices Group*
 Department of Electrical and Electronic Engineering
 Imperial College London

E-mail Addresses: s.lucyszyn@imperial.ac.uk or stepan@ieee.org
 Personal Web Page URL: www.imperial.ac.uk/people/s.lucyszyn

Biography

Stepan Lucyszyn *PhD, DSc, FIEEE*, is Professor of Millimetre-wave Systems and Director of the *Centre for Terahertz Science and Engineering*, at Imperial College London.

After working in industry, as a satellite systems engineer for maritime and military communications, he spent 12 years researching microwave and millimetre-wave RFIC/MMICs. He co-edited a popular book on RFIC/MMICs, published by the IEE (now IET) in 2001. This book was translated into Chinese in 2007. For his contributions to RFIC/MMICs, he was made an *Adjunct Professor* at UESTC (Chengdu, China) in 2008.

In 2001, Prof. Lucyszyn started working on RF MEMS. In 2004, he published a review paper on RF MEMS technology, which won an IEE Premium Award in 2005. He edited the book entitled *Advanced RF MEMS*, published by Cambridge University Press in 2010. For his contributions to RF MEMS, he was made a *Guest Professor* at Tsinghua University (Beijing, China) in 2008.

Prof. Lucyszyn first starting working on millimetre-wave and terahertz technologies in 1992 and 1996, respectively. In 2010, he was awarded the DSc degree (higher doctorate) of Imperial College for his contributions to *Millimetre-wave and Terahertz Electronics*. More recently, he has concentrated his activities on emerging millimetre-wave photonic crystal and 'over the THz horizon' thermal infrared 'THz Torch' technologies. In 2012, he co-founded the cross-disciplinary *Centre for Terahertz Science and Engineering* at Imperial College London. Since 2014, Prof. Lucyszyn has served as a founding member of the Steering Group for the UK's EPSRC Terahertz Network (TeraNet) and in 2016 joined the IEEE Technical Committee for Terahertz Technology and Applications (MTT-4).

Prof. Lucyszyn has (co-)authored over 200 papers and 12 book chapters in applied physics and engineering, and delivered many Plenary and Keynote presentations at international conferences. In addition, he has served as a member of TPCs and prize committees for various international conferences. Over the past few years Prof. Lucyszyn has evaluated numerous international research grant proposals and sat on funding panels within Europe and North America.

Prof. Lucyszyn served as *Editor-in-Chief* for the *International Journal of Electronics* (TandF, 2002-05), *Associate Editor* for the *Journal of Microelectromechanical Systems* (IEEE/ASME, 2005-09) and sat on the Editorial Boards for the international journals *Microwaves, Antennas & Propagation* (IET, 2007-14) and *Wireless Power Transfer* (CUP, since 2014-16). Prof. Lucyszyn was a member of both the EuMA General Assembly, representing Group 4 (UK, Ireland, Gibraltar, Malta), and EuMA Steering Committee (2010-12). He was the *Chairman* of the *41st European Microwave Conference*, held in Manchester (UK, 2011) and co-chaired the *11th European Microwave Integrated Circuits Conference*, held in London (UK, 2016). He was an *IEEE Distinguished Microwave Lecturer (DML)* for 2010-12, *Emeritus DML* for 2013 and appointed a *EuMA European Microwave Lecturer (EML)* for 2013-present. Prof. Lucyszyn has been elected to Fellow of the *Institute of Physics* (UK, 2005), *Institution of Engineering and Technology* (UK, 2005), *The Electromagnetics Academy* (USA, 2008) and *Institute of Electrical and Electronic Engineers* (USA, 2014). In Apr. 2014, he co-founded the Imperial College London spin-out company Drayson Wireless Ltd., being a co-inventor in two patent families associated with radiative and inductive wireless power transfer.

General

Academic Qualifications

- 2010 *D.Sc. in Millimetre-wave and Terahertz Electronics*
Imperial College London
- 1992 *Ph.D. in Electronic Engineering*
University of London (King's College)
- 1988 *M.Sc. in Satellite Communication Engineering*
University of Surrey
- 1987 *B.Sc.(Hons) in Electronic & Communication Engineering*
Polytechnic of North London
-

Professional Employment

- 2016-present *Professor of Millimetre-wave Systems*, Imperial College London
- 2006-16 *Reader (Associate Professor) in Millimetre-wave Electronics*, Imperial College London
- 2001-06 *Senior Lecturer*, Imperial College London
- 2000-01 *Senior Lecturer*, University of Surrey
- 1995-00 *Lecturer in RF Electronics*, University of Surrey
- 1992-95 *Post-Doctoral Research Fellow*, University of London (King's College)
 - Advanced Microwave Signal Processing Techniques for Integrated Circuits
- 1989 *Communication Systems Engineer*, Vega Space Systems Engineering Ltd
 - 6 month subcontract for UK Ministry of Defence SKYNET-4 projects
 - 3 month subcontract for INMARSAT-2 project
- 1988 *Digital Systems Research Engineer*, Alcatel Espace (Toulouse, **France**)
 - 3-month industrial placement for M.Sc. degree
-

Fellowships, Prizes and Awards

- 2017 *Best Paper Award (AWR's Steve Evans-Pughe Prize)*, ARMMS RF & Microwave Society Conference
- 2014 *Fellow of the IEEE*, Institute of Electrical and Electronic Engineers, **USA**
- 2013 *Runner-up Prize*, ARMMS RF & Microwave Society Conference
- 2013 *IEEE UK&RI Presentation Award*, R2i2 Electronics Conference
- 2013 *Best Poster Prize*, Energy Harvesting 2013
- 2013-16 *EuMA European Microwave Lecturer*
- 2013 *IEEE Emeritus Distinguished Microwave Lecturer*
- 2010-12 *IEEE Distinguished Microwave Lecturer*
- 2008 Appointed *Adjunct Professor* at UESTC, Chengdu, **China**
- 2008-10 Appointed *Guest Professor* at the Micro and Nano Technology Research Center, Tsinghua University, Beijing, **China**
- 2008 *Fellow of the EMA*, The Electromagnetics Academy, **USA**
- 2005 *Fellow of the IoP*, Institute of Physics
- 2005 *Fellow of the IEE*, Institution of Electrical Engineers
- 2005 Awarded the *IEE Science, Measurement and Technology Premium Prize*
- 2004 Elected to *Senior Member of the IEEE*, **USA**
- 1999 Awarded *Tan Chin Tuan Exchange Fellowship in Engineering*, Nanyang Technological University (NTU), **Singapore**
- 1994 *Registered Chartered Engineer*, UK Engineering Council
- 1987 Awarded *The Electronic & Communications Engineering Departmental Prize*, Polytechnic of North London

Professional Activities

Professional and Learned Society Committees

- 2018-present TERANET V2 Steering Group
 2016-2018 IEEE MTT-S AdCom's Technical Committee for Terahertz Technology and Applications (MTT-4) (USA)
 2014-2018 EPSRC Terahertz Network (TeraNet) Steering Group
 2007-16 IoP Fellowship Applications Panel Member and past Chair (2008)
 2013-14 EU Management Committee for COST Action IC1301 (WiPE), representing the UK (**Brussels**)
 2011-14 IEEE MTT-S AdCom's Image and Visibility Committee (USA)
 2011-14 IET RF & Microwave Technology Network Executive Team
 2000-14 IEEE MTT/ED/AP/LEO Technical Societies Joint Chapter's AdCom for the United Kingdom & **Republic of Ireland** (UKRI) Section of Region 8 Member and Treasurer
 2010-12 EuMA General Assembly, representing Group 4 (UK, **Ireland, Gibraltar, Malta**)
 2010-12 EuMA Steering Committee
 2005, 11 IEEE Senior Member Review Panel
 2004-07 EU FP6-507352 AMICOM Network of Excellence Summer Schools (**Brussels**) Steering Committee Chair
 1998-00 IEE Professional Group Committee E12 Member and Editor of the E12 Newsletter

International Journal Publishing Activities

- 2014-16 Editorial Board for *Wireless Power Transfer*, Cambridge University Press
 2012-present Editorial Review Board for *IEEE Transactions on Terahertz Science and Technology*
 2012-present Editorial Board for *Radiophysics and Electronics*,
 Institute for Radiophysics and Electronics of the National Academy of Sciences of Ukraine
 2007-14 Editorial Board *IET Microwaves, Antennas & Propagation*
 2012 Guest Editor *EuMA International Journal of Microwave and Wireless Technologies*,
 Cambridge University Press, Special Issue on EuMW 2011
 2007-09 Technical Committee *PIERS Online*
 2005-09 Associate Editor *IEEE/ASME Journal of Microelectromechanical Systems*
 2002-05 Editor-in-Chief *Taylor & Francis International Journal of Electronics*
 2001-03, Editorial Review Board for *IEEE Transactions on Microwave Theory and Techniques*
 1995-97

Selected Conference Activities

- 2016 Co-chair, *11th European Microwave Integrated Circuits Conference (EuMIC)*, London
 2015 Co-chair, *EPSRC-TERANET Workshop on Biological and Medical Applications of THz Technology*, London
 2013 Co-chair, *27th ARMMS RF & Microwave Society Conference*, Wyboston Lakes
 2011 Chair, *41st European Microwave Conference (EuMC)*, Manchester
 2002 Chair, *7th IEEE High Frequency Postgraduate Student Colloquium (HFPSC)*, London

International Conference Technical Program Committees (TPCs)

IEEE International Conference on Micro Electro Mechanical Systems (MEMS 2017), Las Vegas, **USA**

Asia-Pacific Microwave Conference (APMC 2016), New Delhi, **India**

European Microwave Conference (EuMC):

- | | |
|----------------------------------------|---------------------------|
| 2016 London | 2015 Paris, France |
| 2012 Amsterdam, The Netherlands | 2011 Manchester |
| 2010 Paris, France | 2009 Rome, Italy |
| 2008 Amsterdam, The Netherlands | |

IEEE Wireless Power Transfer Conference (WPTC 2015), **USA**

IEEE Mediterranean Microwave Symposium (MMS 2015), **Italy**

Mediterranean Microwave Symposium (MMS):

- | | |
|--------------------------|--------------------|
| 2015 Lecce, Italy | 2010 Cyprus |
|--------------------------|--------------------|

Progress in Electromagnetics Research Symposium (PIERS)

- | | |
|------------------------------------|-----------------------------|
| 2012 Kuala Lumpur, Malaysia | 2011 Suzhou, China |
| 2010 Cambridge, USA | 2010 Xi'an, China |
| 2009 Beijing, China | |
| 2008 Cambridge, USA | 2008 Hangzhou, China |
| 2007 Prague, Czech Republic | 2007 Beijing, China |

IEEE MTT-S International Microwave Workshop Series (IMWS 2011) on Millimeter Wave Integration Technologies, **Spain**

Learned Society and International Conference Invited Lectures

Non-EML/DML Invited International Conference/Workshop Presentations (* Unpublished)

2018	<i>IMWS-AMP, USA</i>	
2017	<i>IEEE IMS Workshop, USA</i>	
2016	<i>ESA/ESTEC, The Netherlands *</i>	<i>SPIE Optics + Photonics</i>
	<i>URSI AP-RASC, Korea</i>	<i>IMWS-AMP, China</i>
	<i>EMN Meeting on Terahertz, Spain</i>	
2015	<i>M/TAW, <u>Keynote</u>, China *</i>	<i>APMC, China</i>
	<i>IMOC, <u>Brazil</u> *</i>	<i>ICCP, <u>Keynote</u>, China *</i>
	<i>GSMM, Canada</i>	<i>AnalytiX, China</i>
2014	<i>IMWS-Bio</i>	<i>IEEE AP/MTT University of Texas at Austin, USA *</i>
2013	<i>APMC, Korea</i>	<i>NATO Workshop, Ukraine</i>
	<i>EuCAP, two papers, Sweden</i>	
2012	<i>IEEE IMS Workshop, Canada</i>	<i>IWWETH, Belgium</i>
2011	<i>APMC, Australia</i>	<i>IWWETH, The Netherlands</i>
	<i>GDMS, <u>Plenary</u>, Japan *</i>	
2010	<i>APMC, Japan</i>	<i>EuMC, France</i>
	<i>C-E WMTT, China</i>	<i>IEEE IMS, USA</i>
2009	<i>ICMEMS, <u>Plenary</u>, India</i>	
2008	<i>APMC, China</i>	<i>IUMRS-ICA, Japan</i>
	<i>Int. Conf. of CSMNT, <u>Plenary</u>, China *</i>	<i>Int. Workshop on Metamaterials, Singapore *</i>
2007	<i>APMC, Thailand</i>	<i>TARGET Workshop, Italy *</i>
2006	<i>MEMSWAVE Workshop, <u>Plenary</u>, Italy *</i>	<i>DTI/FO UK-Korea Nanotechnology Forum, Korea *</i>
2005	<i>MWE, Japan</i>	<i>NATO Workshop, Italy *</i>
	<i>CAS, <u>Plenary</u>, Romania</i>	<i>ICMAT and IUMRS-ICAM, two papers, Singapore</i>
2004	<i>APMC, India</i>	
2003	<i>IEEE/IEE MIDAS Workshop</i>	
2002	<i>Wireless Design Conference, <u>Keynote</u></i>	
1993	<i>Eurochip Workshop on VLSI Design Training, Spain</i>	

EuMA European Microwave Lecturer (EML): *An Engineering Approach Towards Creating Ubiquitous THz Applications*

2017	<i>IET Lecture</i>	<i>IEEE Seminar, NUS, Singapore</i>
2016	<i>IMWS-AMP, <u>Keynote</u>, China</i>	<i>IET Colloquium, <u>Keynote</u></i>
2015	<i>IMOC, <u>Plenary</u>, Brazil</i>	<i>ICCT, <u>Keynote</u>, China</i>
	<i>GeMiC, <u>Keynote</u>, Germany</i>	<i>University College London</i>
2013	<i>ARMMS Conference</i>	<i>MSMW, <u>Plenary</u>, Ukraine</i>

IEEE MTT-S *Distinguished Microwave Lecturer (DML): Commercial Applications for RF MEMS*

2013	<i>ENSEA, France</i>	<i>Kasetsart University, Thailand</i>
(Emeritus)	<i>Chinese University of Hong Kong, China</i>	
2012	<i>ENSEA, France</i>	
	<i>ESIEE, France</i>	<i>APMC, <u>Plenary</u>, Taiwan</i>
	<i>City University, Hong Kong, China</i>	<i>Clastech2012, USA</i>
	<i>Seoul National University, Korea</i>	<i>Sogan (Korea) University, Korea</i>
	<i>University of Pavia, Italy</i>	<i>Warsaw University of Technology, Poland</i>
	<i>National University of Singapore, Singapore</i>	<i>MMWCST, <u>Keynote</u>, China</i>
	<i>Chiang Mai University, Thailand</i>	<i>University of Malaga, Spain</i>
2011	<i>RFM, <u>Keynote</u>, Malaysia</i>	<i>A*Star, Singapore</i>
	<i>APMC, Australia</i>	<i>YSC, <u>Keynote</u>, Ukraine</i>
	<i>IMWS and RFID-TA, <u>Keynote</u>, Spain</i>	<i>Tohoku University, Japan</i>
	<i>ARMMS Conference</i>	<i>Chulalongkorn University, Thailand</i>
2010	<i>IEICE Microwave Workshop, Japan</i>	<i>Applications Centre ISRO Ahmedabad, India</i>
	<i>COST IC0803 Meeting, Switzerland</i>	<i>EuMW, France</i>
	<i>University of Leeds</i>	<i>UNAMems, Mexico</i>
	<i>SPJW, <u>Keynote</u>, Japan</i>	

External University Activities

National and International Research Project Evaluator: Panel Memberships (PM) and Proposal Reviews (PR)

2018	National Science Centre, Poland , PR
2018	Research Promotion Foundation Cyprus (RPF), PR
2018	German Research Foundation (DFG), Bonn, Germany , PM
2018	Royal Academy of Engineering (RAEng) for Research Fellowship scheme, PR
2017	Republic of Kazakhstan , Ministry of Education and Science, PR
2017	Netherlands Organisation for Scientific Research (NOW), PR
2017	Israeli Ministry of Science, Technology and Space, PR
2017	Canada Foundation for Innovation, Toronto, Canada , PM
2016	UK India Education and Research Initiative (UKIERI), British Council, PR
2016	Swedish Knowledge Foundation proposal on behalf of the Mid Sweden University, PR
2016	Portuguese Instituto de Telecomunicacoes, PR
2013, 16-18	Hong Kong Research Grant Council (RGC), PR
2013, 15	Italian Ministry for Education, University and Research (MIUR), PR and rapporteur
2013	Canada Council for the Arts, PR
2012-15	European Commission – Reviewer for FP7-ICT Project 257964 NANOTEC, Brussels, Belgium €10M Large-scale Integrating Project, with 17 partners over 47 months, PM
2012	Swiss National Science Foundation (SNSF), PR
2011, 15	Austrian Science Fund (FWF), PR
2011	Greek Ministry of Education - THALIS Phase II Research Program, PR
2010, 17	Qatar Foundation's Qatar National Research Fund (QNRF), PR
2007	European Commission – Seventh Framework Programme, Brussels, Belgium , PM and rapporteur
2007	Irish Research Council for Science, Engineering and Technology (IRCSET), Dublin, Ireland , PM
1998, 05	EPSRC Responsive Mode Grant Assessment Panels, PM
1997-present	EPSRC Peer Review College

University/Laboratory Examiner/Reviewer/Assessor

2017-20	National University of Ireland, University College Cork, Department of Electrical and Electronic Engineering External Examiner for the B.E. and M.Eng.Sc. degree programmes, Ireland
2017	The Chinese University of Hong Kong (CUHK), External Reviewer for Mock Research Assessment Exercise (RAE) of Faculty of Engineering, China
2017	Universiti Tunku Abdul Rahman (UTAR), Assessor for promotions, Malaysia
2017	Association of Commonwealth Universities, Assessor for promotion
2017	A*STAR Review of Nomination for the President's Technology Award, Singapore
2016	Foundation for Research and Technology (FORTH), Assessor for promotion, Greece
2016	University of Sharjah, Assessor for promotion, UAE
2015-18	King Fahd University of Petroleum & Minerals (KFUPM), Research grant evaluation, Saudi Arabia
2015	Cardiff University, School of Physics and Astronomy Reviewer of proposals for new MSc in Physics and MSc in Astrophysics
2013	Research Institute of Electrical Communication, Tohoku University, Sendai, Japan Reviewer for the Advanced Wireless Information Technology Laboratory, Broadband Engineering Division
2009-13	University of Leeds, School of Electronic and Electrical Engineering External Examiner for BEng and MEng degree programmes
2009-10	University of Leeds, School of Electronic and Electrical Engineering Examiner for MSc in Nanotechnology and Advanced Electronic Devices
2007	Nanyang Technological University, School of Electrical and Electronic Engineering, Singapore Assessor for Tenure
2007	Nanyang Technological University, School of Mechanical and Aerospace Engineering, Singapore Reviewer for new appointments

Research Student Examiner

2017	Sachin Agrawal	PhD	Indian Institute of Information Technology
2017	Robin Nag	PhD	University of Kent
2017	Yang Zeng	PhD	Queen Mary University of London
2015	Sam Rowe	PhD	Cardiff University
2015	Sarah Louise Heywood	PhD	University of Nottingham
2015	Andrew J. Farrall	PhD	University of Kent
2014	Paras Chawala	PhD	Thapar University, India
2014	Huhammad Yameen Sandhu	PhD	University of Leeds
2012	Charalampos Fragkidakis	PhD	Cranfield University
2010	Ruo Feng Xu	PhD	University of Kent
2010	Jaibir Sharma	PhD	IIT Madras, India
2009	Peng W. Wong	PhD	University of Leeds
2008	Themis Prodromakis	PhD	Imperial College London
2008	Kwok Wai Lau	PhD	CityUHK, China
2008	Carlos Law	MPhil	CUHK, China
2008	Nandi Logan	PhD	University of Bradford
2007	Lai B. Lok	PhD	University of Leeds
2005	Chong Chon Ng	MPhil	CUHK, China
2005	Novak E. S. Farrington	PhD	University of Leeds
2005	Mi Lin	MPhil	University of Cambridge
2004	Danhong Shi	MEng by Research	NTU, Singapore
2001	Aik C. Ng	MEng by Research	NTU, Singapore
2000	Kian S. Ang	PhD	University of Surrey

Internal Research Supervision**Research Fellows**

Principal (P) or co-(C) supervisor for the following full-time researchers:

2017	Dr Enrique Marquez-Segura (P)	3-month sabbatical from University of Malaga, Spain
2015-16	Dr Xu Zhang (P)	1-year sabbatical from Nankai University, China
2015-16	Dr Fangjing Hu (P)	9 months: eFUTURES and IC-CiC
2015-16	Dr Zhengwei Wang (P)	1-year secondment from Sichuan Jiuzhou Electric Group Co., China
2014-17	William J. Otter (P)	3 years: EP/M001121/1
2014-17	Dr Munir M. Ahmed (P)	3 years P/T: EP/M001121/1
2013-14	William J. Otter (P)	6 months: EESE_P47587
2013-14	Christopher Kwan (C)	6 months: EESC_P47751
2013-14	Xiaoxin Liang (P)	1-year sabbatical from Chinese Academy of Sciences, China
2012-13	Manuel Pinuela (P)	6 months: EESE_P43676
2012-13	James Lawson (C)	6 months: EESC_P43681
2012	Juan José Sanchez-Martinez (P)	3-month sabbatical from University of Malaga, Spain
2012-13	Professor Marcos T. de Melo (P)	1-year sabbatical from Federal University of Pernambuco, Brazil
2011-12	Manuel Pinuela (P)	6 months: EESE_P39078
2010	Dr Yun Zhou (P)	EPSRC: EP/E063500/1
2004-06	Dr Michael P. Larsson (P)	EPSRC: GR/S97019/01
2004-06	Dr Hong Wen Jiang (P)	EPSRC: GR/S57013/01
2004-05	Kenichi Miyaguchi (P)	1-year secondment from Mitsubishi Electric, Japan
2004	Professor Xiaoxia Zhang (P)	6-month sabbatical from UESTC, China
2003	Dr Paul R. Young (C)	EPSRC: GR/N06366/01
1998-01	Dr Roy D. Forrest (C)	EPSRC: GR/M01418
1997-02	Christos E. Chrisostomidis (P)	EPSRC: GR/L37595

Current PhD Students

2018	Roshan Payapulli (ESPRC Industrial CASE with Airbus Group Limited)
2018-	Sang-Hee Shin
2018-	Ran Cheng
2016-	Hang Ren
2016-	Attique Dawood

Completed PhD Students

2018	Jonathan A. Hazell <i>“New Slow Wave Structures for Travelling Wave Tubes”</i>
2018	Jingye Sun <i>“‘Over the THz Horizon’ Thermal Infrared Technologies and Applications”</i>
2015	Mario D’auria <i>“Low Cost Fabrication Processing for Microwave and Millimetre-Wave Passive Components”</i>
2015	William J. Otter <i>“Technologies for Terahertz Frequency Sensing”</i>
2014	Fangjing Hu (Winner of the Eryl Cadwaladr Davies Prize for best Doctoral Thesis during 2014/15) <i>“‘THz Torch’ Technology: Secure Thermal Infrared Wireless Communications Using Engineered Blackbody Radiation”</i>
2014	Elpida Episkopou <i>“Reconfigurable Optically-controlled Waveguide for Terahertz Applications”</i>
2014	Stergios Papantonis <i>“Investigation of Passive Electromagnetic Components with Metamaterials”</i>
2013	Manuel Pinuela <i>“Ambient Energy Harvesting and Efficient DC-Load Inductive Power Transfer”</i>
2013	Xuguo Huang <i>“Bulk Micromachined Trench-coupler Based Microwave Circuits”</i>
2010	Kai Herbertz <i>“Design, Production and Characterisation of EBG Filters”</i>
2009	Yun Zhou <i>“Reconfigurable Terahertz Integrated Architecture (RETINA)”</i>
2008	Joo-Young Choi <i>“RF MEMS Switches for High Power Applications”</i>
2006	Jun Su Lee <i>“Bulk Micromachined Electrothermal Microactuator using the Hydraulic Force of a Phase Change Material”</i>
2005	Suneat Pranonsatit <i>“Enabling Fabrication Technologies for Advanced RF MEMS”</i>
2003	Ioannis D. Stamatopoulos <i>“Analytical Techniques for Modelling the Laminated Waveguide”</i>
2003	Christos E. Chrisostomidis <i>“Chained Function Filters – Theory and Applications”</i>
2001	Douglas S. McPherson <i>“Circuits and Systems for 77 GHz MMIC Software Radar”</i>
2000	Yuanxing Zheng <i>“Microsatellite Radar Altimeter Payload Design for Global Sea State Monitoring”</i>

Publications

Refereed Journal Papers

1. B. Al-Juboori, J. Zhou, Y. Huang, M. Hussein, A. Alieldin, W. J. Otter, D. Klugmann, and S. Lucyszyn, "Lightweight and low-loss 3-D printed millimeter-wave bandpass filter based on gap-waveguide", *IEEE Access*, vol. 7, no. 1, pp. 2624-2632, Jan. 2019
2. J. Sun and S. Lucyszyn, "Extracting complex dielectric properties from reflection-transmission mode spectroscopy", *IEEE Access*, vol. 6, no. 1, pp. 8302-8321, Jan. 2018
3. W. J. Otter and S. Lucyszyn, "Hybrid 3-D-printing technology for tunable THz applications", *Proceedings of IEEE, Special Issue on Additive Manufacturing of Radio-Frequency Components*, vol. 105, no. 4, pp. 756-767, Apr. 2017 (Invited)
4. W. J. Otter and S. Lucyszyn, "Printing: the future of THz", *IET Electronics Letters*, vol. 53, no. 7, p. 433, Mar. 2017 (Invited Feature Article)
5. W. J. Otter, N. M. Ridler, H. Yasukochi, K. Soeda, K. Konishi, J. Yumoto, M. Kuwata-Gonokami and S. Lucyszyn, "3D printed 1.1 THz waveguides," *IET Electronics Letters*, vol. 53, no. 7, pp. 471-473, Mar. 2017
6. S. M. Hanham, M. M. Ahmad, S. Lucyszyn and N. Klein, "LED-switchable high-Q packaged THz microbeam resonators," *IEEE Trans. Terahertz Sci. and Techn.*, vol. 7, no. 2, pp. 199-208, Mar. 2017
7. A. A. Muller, E. Sanabria-Codesal, A. Moldoveanu, V. Asavei, and S. Lucyszyn, "Extended capabilities of the 3-D Smith chart with group delay and resonator quality factor", *IEEE Transactions on Microwave Theory and Techniques*, vol. 65, no. 1, pp. 10-19, Jan. 2017
8. S. S. Dhillon, M. S. Vitiello, E. H. Linfield, A. G. Davies, M. C. Hoffmann, J. Booske, C. Paoloni, M. Gensch, P. Weightman, G. P. Williams, E. Castro-Camus, D. R. S. Cumming, F. Simoens, I. Escorcía-Carranza, J. Grant, S. Lucyszyn, M. Kuwata-Gonokami, K. Konishi, M. Koch, C. A. Schmuttenmaer, T. L. Cocker, R. Huber, A. G. Markelz, Z. D. Taylor, V. P. Wallace, J. A. Zeitler, J. Sibik, T. M. Korter, B. Ellison, S. Rea, P. Goldsmith, K. B. Cooper, R. Appleby, D. Pardo, P. G. Huggard, V. Krozer, H. Shams, M. Fice, C. Renaud, A. Seeds, A. Stoehr, M. Naftaly, N. Ridler, R. Clarke, J. Cunningham, and M. Johnston, "The 2017 terahertz science and technology roadmap", *IoP Journal of Physics D: Applied Physics (JPhysD)*, vol. 50, no. 4, 043001, pp. 1-49, Jan. 2017 (Invited)
9. A. A. Muller, E. Sanabria-Codesal and S. Lucyszyn, "Computational cost reduction for N+2 order coupling matrix synthesis based on Desnanot-Jacobi Identity", *IEEE Access*, vol. 4, pp. 10042-10050, Nov. 2016
10. J. Sun, F. Hu and S. Lucyszyn, "Predicting atmospheric attenuation under pristine conditions between 0.1 and 100 THz", *IEEE Access*, vol. 4, pp. 9377-9399, Nov. 2016
11. B. T. W. Gillatt, M. D'Auria, W. J. Otter, N. M. Ridler and S. Lucyszyn, "3-D printed variable phase shifter", *IEEE Micro. and Wireless Comp. Lett.*, vol. 26, no.10, pp. 822-824, Oct. 2016
12. F. Hu and S. Lucyszyn, "Advances in front-end enabling technologies for thermal infrared 'THz Torch' wireless communications", *Journal of Infrared, Millimeter, and Terahertz Waves*, vol. 37, no. 9, pp. 881-893, May 2016
13. A. A. Muller and S. Lucyszyn, "Properties of purely reactive Foster and non-Foster passive networks", *IET Electronics Letters*, vol. 51, no. 23, pp. 1882-1884, Nov. 2015
14. M. D'Auria, W. J. Otter, J. Hazell, B. T. W. Gillatt, C. Long-Collins, N. M. Ridler and S. Lucyszyn, "3-D printed metal-pipe rectangular waveguides", *IEEE Transactions on Components, Packaging and Manufacturing Technology*, vol. 5, no. 9, pp. 1339-1349, Sep. 2015
15. S. M. Hanham, C. Watts, W. J. Otter, S. Lucyszyn and N. Klein, "Dielectric measurements of nanoliter liquids with a photonic crystal resonator at terahertz frequencies", *Applied Physics Letters*, vol. 107, 032903, Jul. 2015
16. S. Papantonis and S. Lucyszyn, "Lossy spherical cavity resonators for stress-testing arbitrary 3D Eigenmode solvers", *PIER Journal*, vol. 151, pp. 151-167, May 2015
17. F. Hu, J. Sun, H. E. Brindley, X. Liang and S. Lucyszyn, "Systems analysis for thermal infrared 'THz Torch' applications", *Journal of Infrared, Millimeter, and Terahertz Waves*, Springer, vol. 36, no. 5, pp. 474-495, May 2015
18. F. Hu and S. Lucyszyn, "Modelling miniature incandescent light bulbs for thermal infrared 'THz Torch' applications", *Journal of Infrared, Millimeter, and Terahertz Waves*, Springer, vol. 36, no. 4, pp. 350-367, Apr. 2015
19. J. J. Sanchez-Martinez, E. Marquez-Segura and S. Lucyszyn, "Synthesis and design of high-selectivity wideband quasi-elliptic bandpass filters using multiconductor transmission lines", *IEEE Transactions on Microwave Theory and Techniques*, vol. 63, no. 1, pp. 198-208, Jan. 2015
20. A. A. Muller, E. Sanabria-Codesal, A. Moldoveanu, V. Asavei, P. Soto, V. E. Boria and S. Lucyszyn, "Apollonius unilateral transducer constant power gain circles on 3D Smith charts", *IET Electronics Letters*, vol. 50, no. 21, pp. 1531-1533, Oct. 2014
21. S. Papantonis, N. M. Ridler, A. Wilson and S. Lucyszyn, "Reconfigurable waveguide for vector network analyzer verification", *IEEE Transactions on Microwave Theory and Techniques*, vol. 62, no. 10, pp. 2415-2422, Oct. 2014
22. W. J. Otter, S. M. Hanham, N. M. Ridler, G. Marino, N. Klein and S. Lucyszyn, "100 GHz ultra-high Q-factor photonic crystal resonators", *Sensors and Actuators A: Physical*, Elsevier, vol. 217, pp. 151-159, Sep. 2014
23. X. Liang, F. Hu, Y. Yan and S. Lucyszyn, "Secure thermal infrared communications using engineered blackbody radiation", *Scientific Reports*, Nature Publishing Group, Sci. Rep. 4, 5245, Jun. 2014
24. J. J. Sanchez-Martinez, E. Marquez-Segura and S. Lucyszyn, "Design of compact wideband bandpass filters based on multiconductor transmission lines with interconnected alternate lines", *IEEE Microwave and Wireless Components Letters*, vol. 24, no. 7, pp. 454-456, Jun. 2014

25. N. B. Carvalho, A. Georgiadis, A. Costanzo, H. Rogier, A. Collado, J. A. García, S. Lucyszyn, P. Mezzanotte, J. Kracek, D. Masotti, A. J. Soares Boaventura, M. N. Ruiz Lavin, M. Pinuela, D. C. Yates, P. D. Mitcheson, M. Mazanek and V. Pankrac, "Wireless power transmission: R&D activities within Europe", *IEEE Transactions on Microwave Theory and Techniques*, vol. 62, no. 4, pp. 1031-1045, Apr. 2014
26. S. Papantonis, N. M. Ridler and S. Lucyszyn, "Rectangular waveguide enabling technology using holey surfaces and wire media metamaterials", *Sensors and Actuators A: Physical*, Elsevier, vol. 209, pp. 1-8, Mar. 2014
27. S. Papantonis, S. Lucyszyn and E. Shamonina, "Dispersion effects in Fakir's bed of nails metamaterial waveguides", *AIP Journal of Applied Physics*, vol. 115, no. 5, Feb. 2014
28. J. Lawson, M. Pinuela, D. C. Yeats, S. Lucyszyn and P. D. Mitcheson, "Long range inductive power transfer system", *IoP Journal of Physics: Conference Series (JPCS), PowerMEMS 2013*, vol. 476, 012005, pp. 16-21, Dec. 2013
29. M. Pinuela, P. D. Mitcheson and S. Lucyszyn, "Ambient RF energy harvesting in urban and semi-urban environments", *IEEE Transactions on Microwave Theory and Techniques*, vol. 61, no. 7, pp. 2715-2726, Jul. 2013
30. M. Pinuela, D. C. Yates, S. Lucyszyn and P. D. Mitcheson, "Maximising DC-to-load efficiency for inductive power transfer", *IEEE Transactions on Power Electronics*, vol. 28, no. 5, pp. 2437-2447, May 2013
31. E. Episkopou, S. Papantonis, W. J. Otter and S. Lucyszyn, "Defining material parameters in commercial EM solvers for arbitrary metal-based THz structures", *IEEE Transactions on Terahertz Science and Technology*, vol. 2, no. 5, pp. 513-524, Sep. 2012
32. S. Lucyszyn and Y. Zhou, "Engineering approach to modelling metal THz structures", *Online Journal of Terahertz Science and Technology (JTST)*, vol. 4, no. 1, pp. 1-8, Mar. 2011 (Invited)
33. S. Pranonsatit, A. S. Holmes and S. Lucyszyn, "Microwave modelling of radio frequency microelectromechanical rotary switches", *IET Microwaves, Antennas and Propagation*, vol. 5, no. 3, pp. 255-261, Mar. 2011
34. K. Herbertz and S. Lucyszyn, "Electromagnetic bandgap filter with single-cell monolithic microwave integrated circuit-tuneable defect", *IET Microwaves, Antennas and Propagation*, vol. 4, no. 8, pp. 1123-1131, Aug. 2010
35. C. Chrisostomidis and S. Lucyszyn, "Seed function combination selection for chained function filters", *IET Microwaves, Antennas and Propagation*, vol. 4, no. 6, pp. 799-807, Jun. 2010
36. Y. Zhou and S. Lucyszyn, "Modelling of reconfigurable terahertz integrated architecture (RETINA) SIW structures", *PIER Journal*, vol. 105, pp. 71-92, Jun. 2010
37. S. Lucyszyn and Y. Zhou, "Characterising room temperature THz metal shielding using the engineering approach", *PIER Journal*, vol. 103, pp. 17-31, Apr. 2010
38. S. H. Pu, A. S. Holmes, E. M. Yeatman, C. Papavassiliou and S. Lucyszyn, "Stable zipping RF MEMS varactors", *Journal of Micromechanics and Microengineering*, Institute of Physics Publishing, vol. 20, 035030, pp. 1-8, Mar. 2010
39. S. Lucyszyn and Y. Zhou, "THz applications for the engineering approach to modelling frequency dispersion within normal metals at room temperature", *PIERS Online Journal*, vol. 6, no. 3, pp. 293-299, Feb. 2010
40. S. Lucyszyn and Y. Zhou, "Engineering approach to modelling frequency dispersion within normal metals at room temperature for THz applications", *PIER Journal*, vol. 101, pp. 257-275, Feb. 2010
41. M. P. Larsson and S. Lucyszyn, "Mechanical characterization of C₆₀ whiskers by MEMS bend testing", *IoP Journal of Physics: Conference Series (JPCS), Fullerene Nano Materials (Symposium N of IUMRS-ICA2008)*, vol. 159, 012006, pp. 1-8, Apr. 2009
42. J.-Y. Choi, J. Ruan, F. Coccetti and S. Lucyszyn, "Three-dimensional RF MEMS switch for power applications", *IEEE Trans. on Industrial Electronics*, vol. 56, no. 4, pp. 1031-1039, Apr. 2009
43. Y. Zhou and S. Lucyszyn, "HFSS™ modelling anomalies with THz metal-pipe rectangular waveguide structures at room temperature", *PIERS Online Journal*, vol. 5, no. 3, pp. 201-211, Mar. 2009
44. S. Lucyszyn, K. Miyaguchi, H. W. Jiang, I. D. Robertson, G. Fisher, A. Lord and J.-Y. Choi, "Micromachined RF-coupled cantilever inverted-microstrip millimeter-wave filters", *IEEE/ASME Journal of Microelectromechanical Systems*, vol. 17, no. 3, pp. 767-776, Jun. 2008
45. S. Lucyszyn, "Microwave characterization of nickel", *PIERS Online Journal*, vol. 4, no. 6, pp. 686-690, Jun. 2008
46. S. Lucyszyn, "Evaluating surface impedance models for terahertz frequencies at room temperature", *PIERS Online Journal*, vol. 3, no. 4, pp. 554-559, Jun. 2007
47. J. S. Lee and S. Lucyszyn, "Thermal analysis for bulk-micromachined electrothermal hydraulic microactuators using a phase change material", *Sensors and Actuators A: Physical*, Elsevier, vol. 135, no. 2, pp. 731-739, Apr. 2007
48. S. Lucyszyn, "Comment on "Study of excess conduction loss in normal metals at/below sub-millimeter wavelengths"", *International Journal of Infrared and Millimeter Waves*, Springer, vol. 28, no. 3, pp. 263-266, Mar. 2007
49. J. S. Lee and S. Lucyszyn, "Design and pressure analysis for bulk-micromachined electrothermal hydraulic microactuators using a PCM", *Sensors and Actuators A: Physical*, Elsevier, vol. 133, no. 2, pp. 294-300, Feb. 2007
50. M. P. Larsson, J. Kjelstrup-Hansen and S. Lucyszyn, "DC characterisation of C₆₀ whiskers and nanowhiskers", *ECS Transactions*, The Electrochemical Society, vol. 2, no. 12, pp. 27-38, 2007
51. S. Pranonsatit, A. S. Holmes, I. D. Robertson and S. Lucyszyn, "Single-pole eight-throw RF MEMS rotary switch", *IEEE/ASME Journal of Microelectromechanical Systems*, vol. 15, no. 6, pp. 1735-1744, Dec. 2006
52. M. P. Larsson and S. Lucyszyn, "A micromachined separable RF connector fabricated using low-resistivity silicon", *Journal of Micromechanics and Microengineering*, Institute of Physics Publishing, vol. 16, pp. 2021-2033, Aug. 2006
53. M. P. Larsson and S. Lucyszyn, "Directed growth of C₆₀ nanowhiskers for millimetre-wave detectors", *Romanian Journal of Information Science and Technology (ROMJIST)*, Publishing House of the Romanian Academy, vol. 8, no. 4, pp. 305-320, Dec. 2005

54. S. Pranonsatit and S. Lucyszyn, "Self-assembled screen-printed microwave inductors", *IEE Electronics Letters*, vol. 41, no. 23, pp. 1287-1288, Nov. 2005
55. C. Chrisostomidis and S. Lucyszyn, "On the theory of chained-function filters", *IEEE Transactions on Microwave Theory Tech.*, vol. 53, no. 10, pp. 3142-3151, Oct. 2005
56. J. S. Lee and S. Lucyszyn, "A micromachined refreshable Braille cell", *IEEE/ASME Journal of Microelectromechanical Systems*, vol. 14, no. 4, pp. 673-682, Aug. 2005
57. S. Lucyszyn, "Investigation of Wang's model for room temperature conduction losses in normal metals at terahertz frequencies", *IEEE Transactions on Microwave Theory Tech.*, vol. 53, no. 4, pp. 1398-1403, Apr. 2005
58. X. Zhang, W. Pan and S. Lucyszyn, "A new theoretical modelling of surface resistance in normal metals at terahertz frequencies", *International Journal of Infrared and Millimeter Waves*, Springer Science+Business Media Inc., vol. 25, no. 11, pp. 16211-1620, Nov. 2004
59. S. Lucyszyn, "Investigation of anomalous room temperature conduction losses in normal metals at terahertz frequencies", *IEE Proceedings – Microwaves, Antennas and Propagation*, vol. 151, no. 4, pp. 321-329, Aug. 2004
60. S. Lucyszyn, "Review of radio frequency microelectromechanical systems technology", *IEE Proceedings – Science, Measurement and Technology*, vol. 151, no. 2., pp. 93-103, Mar. 2004 (Winner of IEE Premium Award)
61. G. W. Dahlmann, E. M. Yeatman, P. R. Young, I. D. Robertson and S. Lucyszyn, "Fabrication, RF characteristics and mechanical stability of self-assembled 3D microwave inductors", *Sensors and Actuators A-Physical*, Elsevier Science, vol. 97-98, pp. 215-220, Apr. 2002
62. S. Lucyszyn, "Comment on "Terahertz time-domain spectroscopy of films fabricated from SU-8"", *IEE Electronics Letters*, vol. 37, no. 20, p. 1267, Sep. 2001
63. D. S. McPherson and S. Lucyszyn, "Vector modulator for W-band software radar techniques", *IEEE Transactions on Microwave Theory Tech.*, vol. 49, no. 8, pp. 1451-1461, Aug. 2001
64. M. S. Aftanasar, P. R. Young, I. D. Robertson, J. Minalgiene and S. Lucyszyn, "Photoimageable thick-film millimetre-wave metal-pipe rectangular waveguides", *IEE Electronics Lett.*, vol. 37, no. 18, pp. 1122-1123, Aug. 2001
65. P. R. Young, D. S. McPherson, C. Chrisostomidis, K. Elgaid, I. G. Thayne, S. Lucyszyn and I. D. Robertson, "Accurate non-uniform transmission line model and its application to the de-embedding of on-wafer measurements", *IEE Proceedings – Microwaves, Antennas and Propagation*, vol. 148, no. 3, pp. 153-156, Jun. 2001
66. D. S. McPherson, H.-C. Soe, Y.-L. Jung and S. Lucyszyn, "110 GHz vector modulator for adaptive software-controlled transmitters", *IEEE Microwave and Wireless Components Letters*, vol. 11, no. 1, pp. 16-18, Jan. 2001
67. A. E. Ashtiani, S. Nam, A. d'Espona, S. Lucyszyn and I. D. Robertson, "Direct multilevel carrier modulation using millimeter-wave balanced vector modulators", *IEEE Transactions on Microwave Theory Tech.*, vol. 46, no. 12, pp. 2611-2619, Dec. 1998
68. S. Lucyszyn and I. D. Robertson, "Optically induced measurement anomalies with voltage-tunable analog-control MMIC's", *IEEE Transactions on Microwave Theory Tech.*, vol. 46, no. 8, pp. 1105-1114, Aug. 1998
69. S. Nam, A. E. Ashtiani, I. D. Robertson and S. Lucyszyn, "MMIC circuits enable direct-carrier modulation: Vector modulator design, Part 2", *Microwaves & RF*, pp. 157-163, May 1998
70. S. Nam, A. E. Ashtiani, I. D. Robertson and S. Lucyszyn, "MMIC circuits enable direct-carrier modulation: Vector modulator design, Part 1", *Microwaves & RF*, pp. 113-125, Apr. 1998
71. S. Lucyszyn, "Power-added efficiency errors with RF power amplifiers", *International Journal of Electronics*, Taylor & Francis, vol. 82, no. 3, pp. 303-312, Mar. 1997
72. S. Lucyszyn, D. Budimir, Q. H. Wang and I. D. Robertson, "Design of compact monolithic dielectric-filled metal-pipe rectangular waveguides for millimetre-wave applications", *IEE Proceedings – Microwaves, Antennas and Propagation*, vol. 143, no. 5, pp. 451-453, Oct. 1996
73. S. Lucyszyn and I. D. Robertson, "MMIC tunable active notch filter", *IEE Electronics Letters*, vol. 32, no. 11, pp. 980-981, May 1996
74. S. Lucyszyn, Q. H. Wang and I. D. Robertson, "0.1 THz rectangular waveguide on GaAs semi-insulating substrate", *IEE Electronics Letters*, vol. 31, no. 9, pp. 721-722, Apr. 1995
75. S. Lucyszyn and I. D. Robertson, "Analog reflection topology building blocks for adaptive microwave signal processing applications", *IEEE Transactions on Microwave Theory Tech.*, vol. MTT-43, no. 3, pp. 601-611, Mar. 1995
76. S. Lucyszyn and I. D. Robertson, "Monolithic narrow-band filter using ultrahigh-Q tunable active inductors", *IEEE Transactions on Microwave Theory Tech.*, vol. MTT-42, no. 12, pp. 2617-2622, Dec. 1994
77. S. Lucyszyn, C. Stewart, I. D. Robertson and A. H. Aghvami, "Measurement techniques for monolithic microwave integrated circuits", *IEE Electronics & Communication Engineering Journal*, vol. 6, no. 2, pp. 69-76, Apr. 1994
78. S. Lucyszyn, I. D. Robertson and A. H. Aghvami, "24 GHz serrodyne frequency translator using a 360° analog CPW MMIC phase shifter", *IEEE Microwave and Guided Wave Letters*, vol. 4, no. 3, pp. 71-73, Mar. 1994
79. S. Lucyszyn, I. D. Robertson and A. H. Aghvami, "High performance wideband analogue time shifter", *IEE Electronics Letters*, vol. 29, no. 10, pp. 885-887, May 1993
80. S. Lucyszyn, I. D. Robertson and A. H. Aghvami, "Negative group delay synthesiser", *IEE Electronics Letters*, vol. 29, no. 9, pp. 798-800, Apr. 1993
81. S. Lucyszyn, V. Magnier, H. C. Reader and I. D. Robertson, "Ultrawideband measurement of multiple-port MMICs using nonideal test fixtures and a 2-port ANA", *IEE Proceedings – Science, Measurement and Technology*, vol. 139, no. 5, pp. 235-242, Sept. 1992

82. S. Lucyszyn and I. D. Robertson, "Two-octave bandwidth monolithic analog phase shifter", *IEEE Microwave and Guided Wave Letters*, vol. 2. no. 8, pp. 343-345, Aug. 1992
83. S. Lucyszyn and I. D. Robertson, "Decade bandwidth hybrid analogue phase shifter using MMIC reflection terminations", *IEE Electronics Letters.*, vol. 28, no. 11, pp. 1064-1065, May 1992
84. S. Lucyszyn and I. D. Robertson, "Synthesis techniques for high performance octave bandwidth 180° analog phase shifters", *IEEE Trans. on Microwave Theory Tech.*, vol. MTT-40, no. 4, pp. 731-739, Apr. 1992
85. S. Lucyszyn, S. A. Ausat and I. D. Robertson, "Improved 3dB multisection hybrid coupler using MMIC centre section", *IEE Electronics Letters*, vol. 28, no. 6, pp. 576-577, Mar. 1992

International Conference Proceedings Papers

86. Y. P. Lim, Y. L. Toh, S. Cheab, S. Lucyszyn, and P. W. Wong, "Coupling matrix synthesis and design of a chained-function waveguide filter," *Asia-Pacific Microwave Conference*, Kyoto, Japan, Nov. 2018.
87. S. M. Hanham, C. Watts, M. M. Ahmad, W. J. Otter, S. Lucyszyn and N. Klein, "Photonic crystal resonators for terahertz sensing applications", *40th TEA Progress in Electromagnetics Research Symposium (PIERS 2018) Digest*, IEICE, Toyama, Japan, p. 803, Aug. 2018 (Invited).
88. S. Lucyszyn, X. Shang, W. J. Otter, C. Myant, R. Cheng, and N. M. Ridler, "Polymer-based 3D printed millimeter-wave components for spacecraft payloads," *IEEE MTT-S International Microwave Workshop Series on Advanced Materials and Processes (IMWS-AMP)*, Ann Arbor, USA, Jul. 2018 (Invited)
89. N. Klein, C. Watts, S. M. Hanham, W. J. Otter, M. M. Ahmad and S. Lucyszyn, "Microwave-to-terahertz dielectric resonators for liquid sensing in microfluidic systems", *SPIE Optics + Photonics*, San Diego, vol. 9934, USA, Aug. 2016 (Invited).
90. W. J. Otter, S. M. Hanham, N. Klein and S. Lucyszyn, "Millimeter-wave negative group delay network", *Union Radio-Scientifique Internationale Asia-Pacific Radio Science Conference (URSI AP-RASC 2016)*, Seoul, Korea, pp. 1205-1207, Aug. 2016, (Invited).
91. J. P. Pavia, W. J. Otter, S. Lucyszyn and M. A. Ribeiro, "Design of a THz-MEMS frequency selective surface for structural health monitoring", *The 7th International Conference on Metamaterials, Photonic Crystals and Plasmonics (META'16)*, Malaga, Spain, Jul. 2016.
92. W. J. Otter and S. Lucyszyn, "3-D printing of microwave components for 21st century applications", *IEEE MTT-S International Microwave Workshop Series on Advanced Materials and Processes for RF and THz Applications (IMWS-AMP 2016)*, Chengdu, China, Jul. 2016 (Invited).
93. S. M. Hanham, C. Watts, W. J. Otter, S. Lucyszyn and N. Klein, "Probing the THz response of biological cells using photonic crystal resonators", *Energy Materials Nanotechnology (EMN) Meeting on Terahertz*, San Sebastian, Spain, May 2016 (Invited).
94. W. J. Otter, F. Hu, S. Hanham, A. S. Holmes, W. T. Pike, N. Klein, M. A. Riberio and S. Lucyszyn, "Terahertz metamaterial devices", *International Conference on Semiconductor Mid-IR and THz Materials and Optics (SMMO2016) and 4th Annual Conference of COST Action MPI204*, Lisbon, Portugal, Mar. 2016.
95. J. Sun, F. Hu, Z. Wang and S. Lucyszyn, "Banknote characterization using a thermal infrared 'THz Torch' spectrometer", *Asia-Pacific Microwave Conference (APMC2015)*, Nanjing, China, Dec. 2015 (Invited)
96. F. Hu, W. J. Otter and S. Lucyszyn, "Optically tunable THz frequency metamaterial absorber", *40th International Conference on Infrared, Millimeter, and Terahertz Waves (IRMMW-THz)*, Hong Kong, China, Aug. 2015
97. W. J. Otter, S. M. Hanham, N. M. Ridler, A. S. Holmes, N. Klein and S. Lucyszyn, "Terahertz photonic crystal technology", *Workshop on THz*, Saint Petersburg, Russia, Jul. 2015
98. S. Lucyszyn and F. Hu, "Over the THz horizon: The thermal infrared 'THz Torch'", *8th IEEE Global Symposium on Millimeter-Waves (GSMM2015)*, Montreal, Canada, May 2015 (Invited)
99. J. Sun, F. Hu and S. Lucyszyn, "Challenges for the development of low cost thermal infrared 'THz Torch' spectrometers", *BIT's 4th Annual Conference and EXPO of AnalytiX-2015*, Nanjing, China, p. 216, Apr. 2015 (Invited)
100. N. Klein, S. M. Hanham, T. H. Basey-Fisher, C. Watts, O. Shaforost, W. J. Otter and S. Lucyszyn, "Micro- and millimetre wave measurements of nanolitre biological liquids by dielectric resonators", *IEEE International Microwave Workshop Series on RF and Wireless Technologies for Biomedical and Healthcare Applications (IMWS-Bio2014)*, London, pp. 90-92, Dec. 2014 (Invited)
101. F. Hu and S. Lucyszyn, "Noise analysis for multi-channel 'THz Torch' thermal infrared wireless communications systems", *Asia-Pacific Microwave Conference (APMC 2014)*, Sendai, Japan, pp.1276-1278, Nov. 2014
102. F. Hu, X. Liang and S. Lucyszyn, "Multi-channel thermal infrared communications using engineered blackbody radiation for security applications", *Proceedings of SPIE*, vol. 9253, Oct. 2014
103. W. J. Otter, F. Hu, J. Hazell and S. Lucyszyn, "THz metal mesh filters on electrically thick fused silica substrates", *39th International Conference on Infrared, Millimeter, and Terahertz Waves (IRMMW-THz)*, Tucson, USA, Sep. 2014
104. X. Liang, F. Hu, Y. Yan and S. Lucyszyn, "Link budget analysis for secure thermal infrared communications using engineered blackbody radiation", *XXXI General Assembly and Scientific Symposium of the International Union of Radio Science (URSI GASS 2014)*, Beijing, China, Aug. 2014
105. W. J. Otter, S. M. Hanham, N. Klein, S. Lucyszyn and A. S. Holmes, "W-band laser-controlled photonic crystal variable attenuator", *IEEE International Microwave Symposium (IMS2014)*, Tampa Bay, USA, Jun. 2014

106. W. J. Otter, F. Hu and S. Lucyszyn, "Scalable metal mesh filters for low cost THz applications", *International Conference on Semiconductor Mid-IR Materials and Optics (SMMO2014)*, Marburg, Germany, Feb. 2014
107. D. Rathnayake-Arachchige, D. A. Hutt, P. P. Conway, M. D'Auria, S. Lucyszyn, R. M. Lee and I. D. Robertson and, "Patterning of electroless copper deposition on low temperature co-fired ceramic", *IEEE 15th Electronics Packaging Technology Conference (EPTC 2013)*, Singapore, pp. 630-644, Dec. 2013
108. S. Papantonis, N. M. Ridler and S. Lucyszyn, "A new technique for vector network analyzer calibration verification using a single reconfigurable device", *82nd ARFTG Conference*, Columbus, USA, Nov. 2013
109. S. Lucyszyn, F. Hu and W. J. Otter, "Technology demonstrators for low-cost terahertz engineering", *Asia-Pacific Microwave Conference (APMC 2013)*, Seoul, South Korea, pp. 518-520, Nov. 2013 (Invited)
110. W. J. Otter, S. M. Hanham, N. Ridler, A. S. Holmes, N. Klein and S. Lucyszyn, "Sub-THz photonic crystal devices", *International Conference on THz and Mid Infrared Radiation and Applications to Cancer Detection using Laser Imaging, Workgroup Meetings of COST ACTIONs MP1204 and BM1205*, Sheffield, UK, Oct. 2013
111. F. Hu, W. J. Otter and S. Lucyszyn, "THz metal mesh filters on thick fused silica substrate", *International Conference on THz and Mid Infrared Radiation and Applications to Cancer Detection using Laser Imaging, Workgroup Meetings of COST ACTIONs MP1204 and BM1205*, Sheffield, UK, Oct. 2013
112. N. Klein, O. Shaforost, K. Wang, G. Zhexi, M. Adabi, S. M. Hanham, P. K. Petrov, W. J. Otter, M. Navarro-Cia, S. Lucyszyn and L. Hao, "Microwave-to-terahertz investigation of CVD graphene: towards sensor and communication applications", *39th International Conference on Micro and Nano Engineering (MNE 2013)*, London, UK, p. 223, Sep. 2013
113. W. J. Otter, S. M. Hanham, E. Episkopou, Y. Zhou, N. Klein, A. S. Holmes and S. Lucyszyn, "Photoconductive photonic crystal switch", *38th International Conference on Infrared, Millimeter and Terahertz Waves (IRMMW-THz 2013)*, Mainz, Germany, Sep. 2013
114. N. Klein, T. H. Basey-Fisher, W. J. Otter, N. Guerra, C. Triulzi, A. Gregory, S. M. Hanham and S. Lucyszyn, "Towards microwave and millimeter wave biosensors," *International Kharkov Symposium on Physics and Engineering of Microwaves, Millimeter and Submillimeter Waves (MSMW'13)*, Kharkov, Ukraine, pp. 510-511, Jun. 2013
115. S. Lucyszyn and F. Hu, "THz torch technology for low-cost security applications", *NATO Conference 2013 on THz and Security Applications*, Kiev, Ukraine, May 2013 (Invited)
116. F. Hu and S. Lucyszyn, "Improved 'THz torch' technology for short-range wireless data transfer", *IEEE International Wireless Symposium (IWS2013)*, Beijing, China, Apr. 2013
117. X. Huang and S. Lucyszyn, "Silicon RFIC UWB bandpass filter using bulk-micromachined trench couplers", *IEEE International Wireless Symposium (IWS2013)*, Beijing, China, Apr. 2013
118. M. Pinuela, D. C. Yeats, P. D. Mitcheson and S. Lucyszyn, "London RF survey for radiative ambient RF energy harvesters and efficient DC-load inductive power transfer", *7th EurAAP European Conference on Antennas and Propagation (EUCAP 2013)*, Gothenburg, Sweden, pp. 2839-2843, Apr. 2013 (Invited)
119. S. Lucyszyn and S. Pranonsatit, "RF MEMS for antenna applications", *7th EurAAP European Conference on Antennas and Propagation (EUCAP 2013)*, Gothenburg, Sweden, pp. 1988-1992, Apr. 2013 (Invited)
120. E. Episkopou, S. Papantonis, A. S. Holmes and S. Lucyszyn, "Optically-controlled plasma switch for integrated terahertz applications", *39th IEEE International Conference on Plasma Science (ICOPS2012)*, Edinburgh, Jul. 2012
121. S. Lucyszyn and Y. Zhou, "Reconfigurable terahertz integrated architecture (RETINA) – a paradigm shift in SIW technology", *IEEE International Microwave Symposium (IMS2012) Workshop Proceedings, WFA: Integration and Technologies for mm-Wave Sub-systems*, Montreal, Canada, Jun. 2012 (Invited)
122. M. Pinuela, D. C. Yates, S. Lucyszyn and P. D. Mitcheson, "Current state of research at Imperial College London in RF harvesting and inductive power transfer", *2nd International Workshop on Wireless Energy Transport and Harvesting (IWWETH)*, Leuven, Belgium, May 2012 (Invited)
123. F. Hu and S. Lucyszyn, "Ultra-low cost ubiquitous THz security systems", *Proc. of the 25th Asia-Pacific Microwave Conference (APMC2011)*, Melbourne, Australia, pp. 60-62, Dec. 2011 (Invited)
124. S. Lucyszyn, H. Lu and F. Hu, "Ultra-low cost THz short-range wireless link", *IEEE International Microwave Workshop Series on Millimeter Wave Integrated Technologies (IMWS 2011)*, Sitges, Spain, pp. 49-52, Sep. 2011
125. E. Episkopou, S. Papantonis, W. J. Otter and S. Lucyszyn, "Demystifying material parameters for terahertz electromagnetic simulation", *4th UK/Europe-China Conference on Millimetre Waves and Terahertz Technologies*, Glasgow, UK, pp. 80-81, Sep. 2011
126. M. Pinuela, D. C. Yates, P. D. Mitcheson, S. Lucyszyn, "Maximising the link efficiency of resonant inductive coupling for wireless power transfer", *1st International Workshop on Wireless Energy Transport and Harvesting (IWWETH)*, Eindhoven, The Netherlands, Jun. 2011 (Invited)
127. S. Pranonsatit, A. S. Holmes and S. Lucyszyn, "Sectorised horn antenna array using an RF MEMS rotary switch", *22nd IEEE Asia-Pacific Microwave Conference (APMC 2010)*, Yokohama, Japan, pp. 1909-1913, Dec. 2010 (Invited)
128. M. Pinuela, P. D. Mitcheson and S. Lucyszyn, "Analysis of scalable rectenna configurations for harvesting high frequency ambient radiation", *The 10th International Workshop on Micro and Nanotechnology for Power Generation and Energy Conversion Applications (PowerMEMS 2010)*, Leuven, Belgium, pp. 41-44, Nov. 2010
129. I. D. Robertson, H. M. Hizan, I. C. Hunter, A. I. Abunjaileh, M. F. Shafique and S. Lucyszyn, "Millimeter-wave substrate-integrated circuits on photo-imageable substrate and LTCC", *European Microwave Week (EuMW 2010) Workshop Proceedings: Recent Advances on Substrate Integrated Waveguide Filters*, Paris, France, Sep. 2010 (Invited)

130. S. Lucyszyn, "Substrate integrated metal-pipe rectangular waveguides", *IEEE International Microwave Symposium (IMS2010) Workshop Proceedings, WSI: Substrate Integrated Circuits*, Anaheim, USA, May 2010 (Invited)
131. N. Zaidon, M. P. Larsson, R. R. A. Syms and S. Lucyszyn, "Electrical and Optical Micromachined Connectors, Clips and Clamps", *International Conference on MEMS (ICMEMS 2009)*, Chennai, India, Jan. 2009 (Invited Plenary)
132. S. Lucyszyn, K. Miyaguchi, I. D. Robertson and H. W. Jiang, "Coupled-line RF MEMS filters for millimeter-wave applications", *20th IEEE Asia-Pacific Microwave Conference (APMC'08)*, Hong Kong, China, Dec. 2008 (Invited)
133. M. P. Larsson and S. Lucyszyn, "Characterizing Young's modulus for C₆₀ whiskers". *International Union of Materials Research Societies-International Conference in Asia (IUMRS-ICA 2008)*, Symposium N (Fullerene and Nano Materials), Nagoya, Japan, Dec. 2008 (Invited)
134. K. Herbertz and S. Lucyszyn, "Two-dimensional metamaterials for dual-band filter applications", *38th European Microwave Conference (EuMC 2008)*, Amsterdam, The Netherlands, pp. 1366-1369, Oct. 2008
135. S. Lucyszyn and Y. Zhou, "Reconfigurable Terahertz Integrated Architecture (RETINA)", *33rd International Conference on Infrared, Millimeter, and Terahertz Waves (IRMMW-THz 2008)*, Pasadena, USA, Sep. 2008
136. S. Lucyszyn, "Evaluating surface impedance models for normal metals in the extreme anomalous region", *23rd TEA Progress in Electromagnetics Research Symposium (PIERS2008) Digest of Abstracts*, Hangzhou, China, p. 202, Mar. 2008
137. S. Lucyszyn, S. Pranonsatit, J. Y. Choi, R. W. Moseley, E. M. Yeatman and A. S. Holmes, "Novel RF MEMS switches", *19th IEEE Asia-Pacific Microwave Conference (APMC'07)*, vol. 1, pp. 55-58, Bangkok, Thailand, Dec. 2007 (Invited)
138. J. Y. Choi, J. S. Lee and S. Lucyszyn, "Development of RF MEMS switches for high power applications", *IEEE Mediterranean Microwave Symposium (MMS'2006)*, Genoa, Italy, pp. 293-296, Sep. 2006
139. M. P. Larsson, J. Kjelstrup-Hansen and S. Lucyszyn, "DC characterisation of C₆₀ whiskers using deposited and contacting electrodes", *209th Meeting of The Electrochemical Society Symposium on Fullerene, Nanotubes and Carbon Nanostructures*, Session N1 (Electron Transfer and its Applications of Fullerene and Nanostructured Materials), Denver, USA, May 2006
140. S. Pranonsatit, G. Hong, A. S. Holmes and S. Lucyszyn, "Rotary RF MEMS switch based on the wobble motor principle", *19th IEEE International Conference on Micro Electro Mechanical Systems (MEMS 2006)*, Istanbul, Turkey, pp. 886-889, Jan. 2006
141. S. Pranonsatit and S. Lucyszyn, "RF-MEMS activities in Europe", *Microwave Workshops and Exhibition (MWE 2005) Digest*, Yokohama, Japan, pp. 111-122, Nov. 2005 (Invited)
142. S. Lucyszyn, M. P. Larsson, K. Miyazawa, J.-J. Tsaur and R. Maeda, "Growth of C₆₀AT's nanowhiskers for quiet millimetre-wave detectors", *Proceedings of the 28th IEEE International Semiconductor Conference (CAS 2005)*, Plenary Session, Sinaia, Romania, vol. 1, pp. 9-16, Oct. 2005 (Invited)
143. J. S. Lee and S. Lucyszyn, "Novel flat screen Braille display technology for the blind and partially sighted", *3rd International Conference on Materials for Advanced Technologies 2005 (ICMAT 2005) and 9th International Conference on Advanced Materials (IUMRS-ICAM 2005)*, Symposium C (Biomedical Devices & Instrumentation), Technical Session 7 – Microfluidics, Singapore, Jul. 2005 (Invited)
144. J. S. Lee and S. Lucyszyn, "Bulk-micromachined hydraulic microactuator", *3rd International Conference on Materials for Advanced Technologies 2005 (ICMAT 2005) and 9th International Conference on Advanced Materials (IUMRS-ICAM 2005)*, Symposium F (Nano-Optics & Microsystems), Technical Session 7 – Actuator, Singapore, pp. 115-118, Jul. 2005 (Invited)
145. S. Lucyszyn, "Lies, damn lies and measurements", *16th Asia-Pacific Microwave Conference (APMC'04)*, New Delhi, India, Session D6, pp. 1-4, Dec. 2004 (Invited)
146. S. Lucyszyn, "Accurate CAD modelling of metal conduction losses at terahertz frequencies", *11th IEEE International Symposium on Electron Devices for Microwave and Optoelectronic Applications (EDMO2003)*, Orlando, USA, pp. 180-185, Nov. 2003
147. S. Lucyszyn, "RF MEMS", *4th IEEE/IEE European MIDAS Workshop on Photonic ICs for Cost Efficient Optical Networks and Military Systems*, Guildford, Jul. 2003 (Invited)
148. S. Lucyszyn, "RF MEMS - an introduction", *IEEE Workshop on MEMS for RF and Optoelectronics Applications*, part of the international *Wireless Design Conference*, London, pp. 3-26, May 2002 (Invited Keynote)
149. G. W. Dahlmann, E. M. Yeatman, P. R. Young, I. D. Robertson and S. Lucyszyn, "High Q achieved in microwave inductors fabricated by parallel self-assembly", *The 11th International Conference on Solid-State Sensors and Actuators (Transducers '01 Eurosensors XV)*, Munich, Germany, pp. 1098-1101, Jun. 2001
150. G. W. Dahlmann, E. M. Yeatman, P. R. Young, I. D. Robertson and S. Lucyszyn, "MEMS high Q microwave inductors using solder surface tension self-assembly", *IEEE MTT-S International Microwave Symposium*, Phoenix, USA, pp. 329-332, May 2001
151. D. S. McPherson, K. Elgaid, I. G. Thayne, I. D. Robertson and S. Lucyszyn, "Ultra-broadband nonlinear pHEMT modelling using TOPAS™", *8th IEEE International Symposium on Electron Devices for Microwave and Optoelectronic Applications (EDMO2000)*, Glasgow, UK, pp. 85-88, Nov. 2000
152. C. E. Chrisostomidis, M. Guglielmi, P. R. Young, and S. Lucyszyn, "Application of chained functions to low-cost microwave band-pass filters using standard PCB etching techniques", *30th European Microwave Conference Proceedings*, Paris, France, vol. 3, pp. 40-43, Oct. 2000
153. M. Chongcheawchamnan, K. S. Ang, D. Kpogla, S. Nam, S. Lucyszyn and I. D. Robertson, "Low-cost millimeter-wave transmitter using software radio techniques", *IEEE MTT-S Symposium Digest*, Boston, USA, pp. 1949-1952, Jun. 2000

154. D. S. McPherson, I. D. Robertson and S. Lucyszyn, "A W-band vector modulator and its application to software radar for automotive collision avoidance", *IEEE MTT-S Symposium Digest*, Boston, USA, pp. 1423-1426, Jun. 2000
155. M. S. Aftanasar, I. Stamatopoulos, S. Lucyszyn, S. R. P. Silva and I. D. Robertson, "Feasibility study of materials for novel millimetre-wave multi-chip modules", *Proceedings of the 6th European Conference on MultiChip Modules*, London, UK, Jan. 2000
156. D. S. McPherson, M. G. Stubbs, J. S. Wight and S. Lucyszyn, "A 28 GHz HBT vector modulator and its application to an LMCS feedforward power amplifier", *28th European Microwave Conference Proceedings*, Amsterdam, The Netherlands, pp. 523-528, Oct. 1998
157. S. Nam, A. E. Ashtiani, G. Passiopoulos, S. Lucyszyn and I. D. Robertson, "A 60 GHz 256 QAM balanced vector modulator for short range LOS communication applications", *IEEE MTT-S (jointly with RFIC) Symposium Digest*, Baltimore, USA, pp. 215-218 (271-274), Jun. 1998
158. D. Sanchez-Hernandez, S. Lucyszyn and I. D. Robertson, "A study of integrated antennas for terahertz circuits", *COST-245 Workshop on Applications of MMICs in Active Antenna Systems*, ERA, Leatherhead, Feb. 1996
159. S. Lucyszyn, D. Budimir and I. D. Robertson, "Design of low-loss monolithic millimetre-wave filters using dielectric-filled metal-pipe rectangular waveguides", *Proceedings of the ESA Workshop on Advanced CAD for Microwave Filters and Passive Devices*, ESTEC, Noordwijk, The Netherlands, pp. 381-387, Nov. 1995
160. S. Lucyszyn, C. F. Oztek-Yerli and I. D. Robertson, "Accurate modelling of cold-MESFETs for adaptive MMIC signal processing applications", *25th European Microwave Conference Proceedings*, Bologna, Italy, pp. 1177-1180, Sep. 1995
161. S. Lucyszyn, T. Sewell and I. D. Robertson, "Multi-level digital modulation performed directly at carrier frequency", *25th European Microwave Conference Proceedings*, Bologna, Italy, pp. 673-676, Sep. 1995
162. S. Lucyszyn and I. D. Robertson, "Monolithic active variable gain block for mobile communications and wireless LAN applications", *Proceedings of the IEEE International Conference on Telecommunications*, Bali, Indonesia, pp. 449-452, Apr. 1995
163. M. Gillick, S. Lucyszyn and I. D. Robertson, "Design and application of uniplanar MMIC couplers", *Microwaves 94 Conference Proceedings*, London, UK, pp. 210-215, Oct. 1994
164. U. Karacaoglu, S. Lucyszyn and I. D. Robertson, "MMIC active filters for microwave applications", *Microwaves 94 Conference Proceedings*, London, UK, pp. 200-204, Oct. 1994
165. S. Lucyszyn and I. D. Robertson, "Vector modulators for adaptive and multi-function microwave communication systems", *Microwaves 94 Conference Proceedings*, London, UK, pp. 103-106, Oct. 1994
166. S. Lucyszyn and I. D. Robertson, "High performance analogue MMIC control devices for adaptive phased array applications", *24th European Microwave Conference Proceedings, Cannes, France*, pp. 1796-1801, Sep. 1994
167. S. Lucyszyn, I. D. Robertson and A. H. Aghvami, "Monolithic analogue phase shifter and cascode FET amplifier using uniplanar techniques", *24th European Microwave Conference Proceedings, Cannes, France*, pp. 554-559, Sep. 1994
168. S. Lucyszyn and I. D. Robertson, "High performance MMIC narrow band filter using tunable active inductors", *IEEE Microwave and Millimeter-Wave Monolithic Circuit Symposium Digest*, San Diego, USA, pp. 91-93, May 1994
169. S. Lucyszyn, I. D. Robertson and A. H. Aghvami, "Novel applications in microwave communication systems for small-shift frequency translators", *Proceedings of the IEEE International Conference on Telecommunications*, Dubai, United Arab Emirates, pp. 168-170, Jan. 1994
170. S. Lucyszyn, I. D. Robertson and A. H. Aghvami, "Microwave modelling of varactor diodes fabricated using heterojunction based technologies", *Proceedings of the IEEE Workshop on High Performance Electron Devices for Microwave and Optoelectronic Applications (EDMO1993)*, London, Oct. 1993
171. S. Lucyszyn, I. D. Robertson and J. K. A. Everard, "CAD tools for circuits and device modelling", *Proceedings of the Users Group Meeting on GEC-Marconi GaAs MMICs Design held at the 4th Eurochip Workshop on VLSI Design Training*, Toledo, Spain, Sep. 1993 (Invited)
172. S. Lucyszyn, I. D. Robertson and A. H. Aghvami, "Achieving high package density GaAs MMICs", *Proceedings of the 4th Eurochip Workshop on VLSI Design Training*, Toledo, Spain, pp. 270-274, Sep. 1993
173. S. Lucyszyn, Y. Pilchen, I. D. Robertson and A. H. Aghvami, "Ku-band serrodyne frequency translator using wideband MMIC analogue phase shifters", *23rd European Microwave Conference Proceedings*, Madrid, Spain, pp. 819-822, Sep. 1993
174. S. Lucyszyn and I. D. Robertson, "High performance octave bandwidth MMIC analogue phase shifter", *22nd European Microwave Conference Proceedings*, Espoo, Finland, pp. 221-224, Aug. 1992
175. S. Lucyszyn, J. Luck, G. Green and I. D. Robertson, "Enhanced modelling of interdigitated planar Schottky varactor diodes", *IEEE Asia-Pacific Microwave Conference (APMC'92)*, Adelaide, Australia, pp. 273-278, Aug. 1992
176. S. Lucyszyn, G. Green and I. D. Robertson, "Accurate millimeter-wave large signal modeling of planar Schottky varactor diodes", *IEEE MTT-S Symposium Digest*, Albuquerque, USA, pp. 259-262, Jun. 1992
177. S. Lucyszyn, G. Green and I. D. Robertson, "Interdigitated planar Schottky varactor diodes for tunable MMIC applications", *Proceedings of the ESA/IEEE European Gallium Arsenide Applications Symposium (GAAS'92)*, ESTEC, Noordwijk, The Netherlands, Session 1B, Apr. 1992
178. S. Lucyszyn and I. D. Robertson, "An improved multi-layer quadrature coupler for MMICs", *21st European Microwave Conference Proceedings*, Stuttgart, Germany, pp. 1154-1158, Sep. 1991

National Conference Proceedings Papers

179. S. Lucyszyn, "Passive THz components", *Terahertz Roadmap Conference*, EPSRC Network TERANET, Southampton, Jul. 2017
180. W. J. Otter, N. M. Ridler and S. Lucyszyn, "3D printed waveguides: A revolution in low volume manufacturing for the 21st century", *ARMMS RF & Microwave Society Conference*, Nr Thame, pp. 1-6, Apr. 2017 (Best Paper Prize)
181. F. Hu and S. Lucyszyn, "Thermal infrared communications", *IoP Photon14*, London, Sep. 2014
182. W. J. Otter, F. Hu, J. Hazell and S. Lucyszyn, "From mm-wave to THz: scalable filter design for ultra-low cost applications", *ARMMS RF & Microwave Society Conference*, Nr Thame, Apr. 2014
183. M. D'Auria, A. Sunday, J. Hazell, I. D. Robertson and S. Lucyszyn, "Enabling technology for ultralow-cost RF MEMS switches on LTCC", *ARMMS RF & Microwave Society Conference*, Nr Thame, Apr. 2014
184. W. J. Otter, S. M. Hanham, N. Ridler, A. S. Holmes, N. Klein and S. Lucyszyn, "MM-wave photonic crystal technology", *IET Colloquium on Millimetre-wave and Terahertz Engineering & Technology*, Liverpool, Mar. 2014
185. W. J. Otter, S. M. Hanham, N. M. Ridler, A. S. Holmes, N. Klein and S. Lucyszyn, "100 GHz photonic crystal devices", *ARMMS RF & Microwave Society Conference*, Wyboston, Nov. 2013 (Runner-up Prize)
186. R. M. A. Lee, A. Sunday, N. Kapur, N. Somjit, P. Steenson, I. D. Robertson, M. D'Auria, S. Lucyszyn, D. N. Rathnayake-Arachchige, D. A. Hutt, P. P. Conway, "3D microwave & millimetre-wave system-on-substrate using sacrificial layers for printed RF MEMS components", *R2i2 Electronics Conference, Joint IMAPS-UK, ESP-KTN & IeMRC Event*, Loughborough, Jul. 2013 (IEEE UK&RI Presentation Award)
187. M. Pinuela, D. C. Yates, S. Lucyszyn, P. D. Mitcheson, "The New Wireless", *Energy Harvesting 2013*, EPSRC Energy Harvesting Network, London, Mar. 2013 (Best Poster Prize)
188. F. Hu and S. Lucyszyn, "THz torch technologies for 21st century applications", *IoP Photon12*, Durham, Sep. 2012
189. J. S. Lee and S. Lucyszyn, "Bulk micromachined electrothermal hydraulic microactuator and its applications", *The IET Seminar on MEMS Sensors & Actuators*, London, pp. 311-316, Apr. 2006
190. J. Y. Choi and S. Lucyszyn, "HFSSTM modelling anomalies with electrically thin-walled metal-pipe rectangular waveguide simulations", *10th IEEE High Frequency Postgraduate Student Colloquium (10th HF-PgC) Digest*, ISBN: 0-7803-9500-X, Leeds, pp. 95-98, Sep. 2005
191. S. Pranonsatit and S. Lucyszyn, "Micromachined screen printing (MaSprint) technology for RF MEMS Applications", *10th IEEE High Frequency Postgraduate Student Colloquium (10th HF-PgC) Digest*, ISBN: 0-7803-9500-X, Leeds, pp. 3-6, Sep. 2005
192. M. S. Aftanasar, P. R. Young, I. D. Robertson and S. Lucyszyn, "Fabrication of dielectric-filled rectangular waveguide using thick-film processing", *6th IEEE High Frequency Postgraduate Colloquium Digest*, ISBN: 0-7803-7118-6, Cardiff, pp. 82-87, Sep. 2001
193. C. E. Chrisostomidis, M. Guglielmi and S. Lucyszyn, "Application of chained function filters", *IEE Colloquium Digest on Microwave Filters and Multiplexers*, London, pp. 4/1-7, Nov. 2000
194. S. Lucyszyn, "Multilayer and micromachined passive components", *IEE Tutorial Colloquium Digest on Design of RFICs and MMICs*, London, pp. 8/1-7, Nov. 1999
195. A. E. Ashtiani, S. Nam, T. Gokdemir, S. Lucyszyn and I. D. Robertson, "MMIC balanced vector modulators for millimetre-wave digital communications applications", *IEE Colloquium Digest on MM-Wave Circuits and Technology for Commercial Applications*, London, pp. 8/1-6, Mar. 1999
196. A. E. Ashtiani, S. Nam, S. Lucyszyn and I. D. Robertson, "Monolithic Ka-band 180-degree analog phase shifter employing HEMT-based varactor diodes", *IEE Colloquium Digest on Microwave & Millimetre-Wave Oscillators and Mixers*, London, pp. 7/1-6, Dec. 1998
197. S. Lucyszyn, S. R. P. Silva, I. D. Robertson, R. J. Collier, A. K. Jastrzebski, I. G. Thayne and S. P. Beaumont, "Terahertz multi-chip module (T-MCM) technology for the 21st Century?", *IEE Colloquium Digest on Multi-Chip Modules and RFICs*, London, pp. 6/1-8, May 1998
198. S. Lucyszyn, "The future of on-chip terahertz metal-pipe rectangular waveguides implemented using micromachining and multilayer technologies", *IEE Colloquium Digest on Terahertz Technology and its Applications*, London, pp. 10/1-10, Apr. 1997
199. S. Lucyszyn and I. D. Robertson, "MMIC measurement errors due to photonic absorption", *IEE Colloquium Digest on Optical Control of Microwave Circuits*, London, pp. 1/1-7, Feb. 1996
200. U. Karacaoglu, S. Lucyszyn and I. D. Robertson, "Modelling and design of X-band MMIC varactor-tuned VCOs", *IEE Colloquium Digest on Modelling, Design, and Application of MMIC's*, London, pp. 13/1-5, Jun. 1994
201. U. Karacaoglu, S. Lucyszyn, I. D. Robertson and A. H. Aghvami, "Active filters for future MMIC communications transceivers", *JFIT Conference Digest*, Edinburgh, pp. 41-47, Mar. 1994
202. U. Karacaoglu, S. Lucyszyn, I. D. Robertson and M. Guglielmi, "GaAs MMIC active filters for L-band mobile systems", *IEE Colloquium Digest on Microwave Filters and Antennas for Personal Communication Systems*, London, pp. 7/1-5, Feb. 1994
203. S. Lucyszyn, I. D. Robertson and A. H. Aghvami, "GCPW-to-microstrip transitions for measuring hybrid MICs using MMIC probing techniques", *6th British Electromagnetic Measurements Conference Digest*, NPL, Teddington, pp. 31/1-3, Nov. 1993

204. M. Gillick, S. Lucyszyn, U. Karacaoglu, I. D. Robertson and A. H. Aghvami, "MMIC components for X- and Ku-band satellite systems", *IEE Colloquium Digest on Recent Advances in Microwave Sub-systems for Space and Satellite Applications*, London, pp. 5/1-6, Mar. 1993
205. S. Lucyszyn, I. D. Robertson and A. H. Aghvami, "A high performance analogue time shifter for wideband phased array antennas", *IEE Colloquium Digest on Recent Advances in Microwave Sub-systems for Space and Satellite Applications*, London, pp. 4/1-4, Mar. 1993
206. S. Lucyszyn, V. Magnier and I. D. Robertson, "Multiple-port MMIC measurements using a 2-port ANA", *5th British Electromagnetic Measurements Conference Digest*, NPL, Malvern, pp. 19/1-8, Nov. 1991
207. S. Lucyszyn and I. D. Robertson, "Decade bandwidth MMIC analogue phase shifter", *IEE Colloquium Digest on Multi-octave Microwave Circuits*, London, pp. 2/1-6, Nov. 1991

Book Chapters and Edited Books

208. F. Hu and S. Lucyszyn, "Emerging thermal infrared 'THz Torch' technology for low-cost security and defence applications", Chapter 13, pp. 239-275, "THz and Security Applications: *Detectors, Sources and Associated Electronics for THz Applications*", NATO Science for Peace and Security Series B: Physics and Biophysics, C. Corsi and F. Sizov (Editors), Springer Netherlands, ISBN: 978-94-017-8827-4, Apr. 2014
209. S. Lucyszyn and M. P. Larsson, "Mechanical bend testing of fullerene nanowhiskers", Chapter 9, pp. 117-136, "*Fullerene Nanowhiskers*", K. Miyazawa (Editor), *Pan Stanford Publishing*, ISBN: 9789814241854, Sep. 2011
210. S. Lucyszyn (Editor), "Advanced RF MEMS", 412-page hardback, *Cambridge University Press*, ISBN: 978-0-521-89771-6, Cambridge, Aug. 2010:
211. S. Lucyszyn, "Introduction", Chapter 1, pp. 1-22
212. S. Lucyszyn, S. Pranonsatit, J.-Y. Choi, A. S. Holmes, "Niche switch technologies", Chapter 4, pp. 73-108
213. S. Lucyszyn, "RFIC and MMIC measurement techniques", Chapter 11, pp. 217-262, "*Microwave Measurements*", 3rd Edition, R. Collier and D. Skinner (Editors), *Published by the IET*, ISBN: 978-0-86341-735-1, London, Oct. 2007
214. I. D. Robertson and S. Lucyszyn (Editors), "RFIC and MMIC Design and Technology", 562-page hardback, English Version *Published by the IEE*, ISBN: 0-85296-786-1, London, Nov. 2001; 420-page softback, Chinese Translation *Published by the Publishing House of Electronics Industry*, ISBN: 978-7-121-03830-3, Beijing, China, Feb. 2007:
215. M. Gillick, I. D. Robertson and S. Lucyszyn, "Passive components", Chapter 3, pp. 83-124
216. S. Lucyszyn and J. S. Joshi, "Phase shifters", Chapter 9, pp. 381-427
217. I. D. Robertson and S. Lucyszyn, "Transceivers", Chapter 11, pp. 471-509
218. S. Lucyszyn, "Measurement techniques", Chapter 12, pp. 511-554
219. S. Lucyszyn and J. S. Joshi, "Phase shifters", Chapter 7, pp. 259-303,
220. S. Lucyszyn, "Measurement techniques", Chapter 11, pp. 399-433,
221. S. Lucyszyn and I. D. Robertson, "Advanced techniques", Chapter 12, pp. 435-498, "*MMIC Design*", I. D. Robertson (Editor), *Published by the IEE*, ISBN: 0-85296-816-7, London, Jun. 1995

Patent Families

- PF1. P. D. Mitcheson, S. Lucyszyn, M. P. Rangel, and D. C. Yates, "RF energy harvester", Patent Family: Granted (EP2939309B1, US9837865B2, CA2920443C, DK2939309T3, ES2606209T3, JP6158442B2, KR101729638B1) and Applications (WO2015019106A3, US20170358957A1, US20160181873A1, CN105765783A, GB2517907A, JP2016532423A, KR20160074457A)
- PF2. P. D. Mitcheson, S. Lucyszyn, M. P. Rangel, and D. C. Yates, "Inductive power transfer system", Patent Family: Granted (US9899877B2, GB2505278B) and Applications (WO2014029961A1, US20150207334A1, EP2888801A1, US20150207334A1, CA2817288A1, JP2015532084A, KR20150048188A, CN105247761A)